Run on:

```
OFLEDHPCVSOKSLEDFIKLLVEALGGGANPETSWTNSSNHSSAWNLGSAFFFSGTII
TTIGYGNIVLHTDAGRLFCIFYALVGIPLFGMLLAGVGDRLGSSLRRGIGHIEAIFLK
WHVPPGLVRSLSAVLFLLIGCLLFVLTPTFVFSYMESWSKLEAIYFVIVUTLTTVGFGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YVPGDGTGQNSPAYQPLVWFWILFGLAYFASVLTTIGNWLRAVSRRTAREMGGLTAQA
ASWTGTVTARVTQRTGPSAPPPEKEQPLLPSSLPAPPAVVEPAGRPGSPAPAEKVETP
SPPTASALDYPSENLAFIDESSDTQSERGCALPRAPRGRRRPNPSKKPSRPRGPGRLR
DKAVPV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 07-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fink, M., Honore, E., Duprat, F., Lesage, F. and Lazdunski, M.
Novel mechanically sensitive mammal potassium channel family
activated by polyunsaturated fatty acids and their use particularly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      translation="MRSTTLLALLALVLLYLVSGALVFQALEQPHEQQAQKKMDHGRD"
                                                                                                                                                                                                            Novel pot
1 Rattus no
2 Rattus no
Rattus no
Rattus no
                                                                                                                                                                                                                                                                                                                                                                                                                                              BC062094 Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    U73488 Mus musculu
                                                      Sequence
Homo sapi
Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                  Novel mam
                                                                                                                                                                                                                                                                                                                                                                                      Sequence
TREK1-lik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD273739 Method fo
                                                                                                                                    sapi
                                                                                                                                                      sapi
                                                                                                                                                                                                                                                                                      Oryctolag
                                                                                                                                                                                                                                                                      Ношо варі
                                                                                                                                                                                                                                                                                                                            Homo sapi
                                                                                                                                                                                                                                                                                                            Ното варі
                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                        AX003051 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for screening medicines
Patent: WO 945108-A 1 10-SEP-1999;
FINK MICHEL (FR); HONORE ERIC (FR); DUPRAT FABRICE (FR); LESAGE
FLORIAN (FR); CENTRE NAT RECH SCIENT (FR); LAZDUNSKI MICHEL (FR)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                    Ношо
                                                                                                                                                    Homo
                                                                                                                                                                          Ношо
                                                                                                                                                                                                                          AF325671 F
AF385402 I
AC005848 Hc
AY553324 O
AY553324 O
AX018706 S
BD140671 N
AR156460 S
BD228722 T
                                    AX393903 S
AX319999 B
BC075021 H
BC075021 AX411765 S
AK311765 S
AF385400 H
AF279890 H
AF279890 H
CO718922 S
BD169901 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Score 1194; DB 6; Length 1794;
Best Local Similarity 100.0%; Pred. No. 6.1e-259;
Matches 1194; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note="unnamed protein product; Traak"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="unassigned DNA"
/db_xref="taxon:10095"
2847..1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="CAC07710.1"
/db_xref="G1:10042826"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX018705 1794 bp
Sequence 1 from Patent W09945108
AX018705
                                                                                                                                                                                                                                                    AF385402
                                                                                                                                                                                          CQ718922
BD169901
                                                                                                                                                                                                                                  AF32567:
                                                                                                                                                                                                                                                                                          AY553324
                                                                                                                                                                                                                                                                                                                                                                    BD140671
                                                                                                                                                                                                                                                                                                                                                                                      4R156460
                                                                                                                                                                                                                                                                                                                                                                                                                              AX003051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .1794
/organism="Mus sp."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX018705.1 GI:10042825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon start=1
                                                      1632
1713
1716
2065
2402
2484
2730
1455
3187
3291
                                                                                                                                                                                                                                                                                                                                                                  1993
                                                                                                                                                                                                                                                                      174562
                                                                                                                                                                                                                                                                                                            166356
                                                                                                                                                                                                                                                                                                                              230039
Mus sp.
Mus sp.
\begin{array}{c} 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\ 2.25\\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AX018705
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
  AF259502 Rattus no
AC120557 Mus muscu
AC147519 Mus muscu
AC098622 Rattus no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AF056492 Mus muscu
AF302842 Rattus no
                                                                                                                                  2, 2005, 16:19:15; Search time 5274 Seconds (without alignments) 10706.087 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapi
Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AX018705 Sequence
BD140670 Novel mam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapi
Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AF247042 Homo sapi
AR338704 Sequence
BC033577 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR221261 Sequence
AX250709 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                      1 atgcgcagcaccacactcct......gagacaaggccgtgccggtg 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX278168 S
AX278166 S
AF248242 F
                                                                                                                                                                                                                                                                                                                                                                                        9053458
                      5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                    4526729 segs, 23644849745 residues
                                                                                                                                                                                                                                                                                                                                                                                        Notal number of hits satisfying chosen parameters:
                                                                                                                                                                                                          US-09-655-272-1_COPY_284_1477
1194
                    GenCore version
Copyright (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                              nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC120557
AC147519
AC098622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF247042
AR338704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF259502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX250709
AR221262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX018705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AF248242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF259501
                                                                                                                                                                                                                                                                                          IDENTITY NUC Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    四
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181489
223092
257210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gb_htg: *
gb_ov: *
gb_ov: *
gb_ov: *
gb_bh: *
gb_pl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenEmbl:*
                                                                                                                                    February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    688.22
688.22
688.22
445.44
232.88
28.88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        392
392
340.8
                                                                                                                                                                                                                fitle:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            814.4
811.4
542
                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  498.4
                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB
Maximum DB
                                                                                                OM nucleic
                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database
```

ö

Result Š.

음 장

qq

දු දු

දු පු

\$ g

දු පු

q

Š

& g

qq ò d

ò

ò g ò οp ઠે

90 A90

6 6 6 6

원 ·

RESULT 3

දු ද

14.1 WITH CONTRICT TO THE CONTRICT CONT	AUTLE Synergistic interaction and the role of C-terminus in the activation of TRAAK K+ channels by pressure, free fatty acids and alkali JOURNAL PElugers Arch. 442 (1), 64-72 (2001) FINGER 21266449 FINGER 21266449 FURNED 11374070 REFERRNCE Kim, Y. and Kim, D. JOURNAL Sim, Y. and Kim, D. JOURNAL Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chciago, IL 60064, USA AUTHORS Kim, Y. and Kim, D. TITLE Direct Submitseion JOURNAL Schenes/The Chicago Medical School, 3333 Green Bay Road, North Chciago, IL 60064, USA TITLE Direct Submission JOURNAL Submission JOURNAL Schenes/The Chicago Medical School, 3333 Green Bay Road, North Chciago, IL 60064, USA REMARK Sequence update by submitter COMMENT Chciago, IL 60064, USA Sequence update by submitter COMMENT Chciago, IL 60064, USA Sequence update by submitter Source 1. 1194	/ Organism="Rattus norvegicus" // mol_type="mRNA" // strain="Spague-Dawley" // db xref="taxon:10116" // codon start=1 // product="mechanosensitive tandem pore potassium channel" // db xref="di117981767" //	Query Match 89.7%; Score 1070.9; DB 10; Length 1194; Best Local Similarity 94.1%; Pred: No. 4.2e-231; Indels 3; Gaps 1; Matches 1124; Conservative 0; Mismatches 67; Indels 3; Gaps 1; Qy 1 ATGCGCAGCACCACACTCCTGGTCTGCTGGTGCTTTACTTGGTATCTGGG 60 1 1 ATGCGCAGCACACACTCTGGTGCTGTGGTGCTTTACTTGGTATCTGGG 60 Qy 61 GGTCTAGTGTTCTGAGGCTCTGGAGGAGCTGCTAGGAAAAAATGGA 120 120 120 Qy 121 CATGGCCGAGACCAGTTTTATGGCTCTGGAGGCTTCATGAGGAAAGACTGGAAA 120 120 120 Qy 121 CATGGCCGAGACCAGTTTTTATGGGCCACTCTGTGTGGAGCCTGGAAGACCTGGAGAT 180 121 121 GATGGCCGAGACCAGTTTTTTTTTTTTTTTTTTTTTTTT	Qy 181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCAAACCCAGAAACCAGCTGGACC 240 Db 181 TTCATCAAGCTCGTGGCTGAAGCCCTGGGGGGGCGCAAACCCAGAAACCAGTTGGACC 240 Qy 241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCTTCTTTTTCTCGGGGACC 300 Db 241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCCCTTCTTTTTCTCGGGGACC 300 Qy 301 ATCATCACTACCATCGGCAATAGACTTACACACAGATGCTGGGGCTTCTTT Bb 301 ATCATCACTACCATCGGCAATATAGTCTTACACACAGATGCTGGGCGTCTTTT CQ 361 TGTATCTTCTATGCACTGGCGAATATAGCCTTACACACAGATGCTGGGGGTTCTTT CQ 361 TGTATCTTCTATGCACTGGTGGGGAATCCCACTGTTCGGGATGCTGCTGGGGAGTCGGG CQ 361 TGTATCTTCTATGCACTGGTGGGGAATCCCACTGTTCGGGATGCTGCTGGGGGAGTCGGG CA 361 TGTATCTTCTATGCACTGGTGGGGAATCCCACTGTTCGGGATGCTGCTGGCGGAGGTCGGG ACACTGATGCAGGGGAATCCCACTGTTCGGGATGCTGCTGGCGGAGGTCGGGGAGTCGGGGAGTTCGGGGAGTTCGGGGAGTTCGGGGAGTTCGGGGAGTTCGGGGAGTTCGGGGAGTTCGCTGGAGGTCGTGGGGGAGTTCGGGGAGTTCGGGGATCTGCTGGGGAGTTCGGGGATTCCACTGGTTCGGGATTCTGCTGGGGAGTTCGGGGAGTTCGGGGAGTTCGCTGGGGAGTTCGCTGGGGAGTTCCTTTTTTTT
16. TGTATCTTCTATCGACTGGTGGGGATCCACTGTTCGGGATGCTGCTGGCGGGAGTTCGGG 44 TGTATCTTCTATCGACTGGTGGGGATCCACTGTTCGGGATGCTGCTGGGGGGATCTGGGG 45 TGTATCTTCTATGGCTCTCTTTGGCGGGATCCCACTGTTCGGGATGCTTGTGAG 46 TGTATCTCTCTTGGGCGATCCTTGGTGGTGTGTGGTGTG				
HA MUNAW ZWNL	TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGGCGGAGTCGGGGAGTCGGGGAGTCCGGGAGTCCGGGAGTCCGGGAGTCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGGGAGTCCGGGAGTCCGGAGTCGGAGTCGGAGTCGGGAGTCGGGAGTCGGGAGTCGGGGAGTCGGGGAGTCGGGGAGTCGGGGAGTCGGGGAGTCGGGGAGTCGGGGGAGTCGGGGGGGG	CCCGGCGATGGCCACCGGCGCACACCCACCACCGCGCTGGTGTTTTTTTT	AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCCACGGCCTCA AGGCCCGGCTCCCCCTGCACCCCGCAGAGAATCTCGACTCGACTCCTCCTCCTCCCGCCCCACGGCCTCA GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGGTCCTCAGACACCCACC	AF302842 N Rattus norvegicus mechanosensitive tandem pore potassium carbanosensitive tandem pore potassium carbanosensitive tandem pore potassium carbanosens. AF302842 AF302842.2 GI:17981766 Rattus norvegicus (Norway rat) N Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murin Rattus 1 (bases 1 to 1194) Kim,Y., Bang,H., Gnatenco,C. and Kim,D.

9

240

240 300 360

357 420 417 480 477

297

180

120

8 8

Ω

ò

ર્જ 원 8 g

g

8 g ò

6 B 6

ద

셤

ઠ

유

8

셤 ò 셤

Š

g

ઠ

```
946 AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCCTTCCCCGCCCACGGCCTCG 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCCCGGCTCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                        121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGÀT 180
                                                                                                      GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGCTCAGAAAAATGGAT 120
                                                                                                                                                                                                                                                             418 GACCGGCTGGGCTCCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                            181 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGTGCGGACCCAGAAACCACACGCC
                                                                                                                                                                                                                                                                                                                    ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGGCTGGGCTCCTCTCTGCGCCCGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCCATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 CCCGGCGATGGCACCGGGCAGCTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIGITITGGCCTAGCCTACTTCGCCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGTCCCGCCGAAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 898 gagciacicaciaciec-----idecreciacecerereredecadecereded
                                                     ATGCGCAGCACCACACTCCTGGCTCTGCTGGCTGCTGCTTTACTTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                           15;
  Length
                           Indels
Score 814.4; DB 6;
Pred. No. 3.3e-173;
0; Mismatches 206;
 Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    778
                                                                                                      61
                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                      a
                                                                                                                             요
                                                                                                                                                                              셤
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                      8
                                                                                                                                                        8
                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 26-SEP-2002
                                                     540
                                                                            540
                                                                                                      900
                                                                                                                                                          99
                                                                                                                                                                                    9
                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
  480
                           480
                                                                                                                                 9
                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                TIGITIGGCCTAGCCTACTICGCCTCAGIGCTCACCACCAICGGCAACIGGTTGCGAGCA 780
                                                                                                                                                                                                                                                                                          780
 CTGAAAGCCATCTACTTTGTTATAGTGACACTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                     GGCACAGTGACAGGGGGAGTGACCCAGCGAACTGGGCCCAGCGCCCGGCCGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                     AGGCCCGGCTCCCCCCCCCACCGCAGAAGTCGAGACTC---CCCCGCCCAGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGAGGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCATGTGCCACCGGGGCTGAGAAGTCTGTCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                     TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTTTTCCTACATGAAGAGTTGGAGCAAG
                                                                                                                                                                                                             CCCGGCGATGGCACCCGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                            CCAGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGGTTCTGGATC
                                                                                                                                                                                                                                                                               CIGITIGECCIAGCCIACTICGCCICAGIGITICACCACIAITCGCAACTGGITGCGAGCG
                                                                                                                                                                                                                                                                                                                                 GTGTCCCGCCGAACTCGCGCAGAGATGGGTGGCCTCCACGGCGCAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGAGCTGGAGCAAG
                                                                                                                                                          TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                    GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCCGGCTCCCCTGCACCCGCAGGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unknown.
Unclassified.
1 (bases 1 to 1182)
Duckworth, D. M. and Chapman, C.G.
Polynucleotides encoding a human potassium Patent: US 6426197. A 130-UJU-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1 from patent US 6426197.
AR221261.1 GI:23328170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="unknown"
/wol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                 541
                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1138
 121
                           421
                                                   181
                                                                            481
                                                                                                      541
                                                                                                                                                                                    601
                                                                                                                                                                                                             199
                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
AR221261
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

540

537

9

597 99 657 720

717

780

777

840

837

900

897

945

		658 G 721 T 721 T 718 C 781 G	0	1021 1006 1081 1066 1141	RESULT 7 AR221262 LOGIC 2 AR221262 ACCESSION AR221262.1 GI:23328171 KEYWORDS SOURCE Unknown. ORGANISM Unknown. Unclassified. Unclassified. Unclassified.
Qy 1021 GCTCTGGATTACCCCCAGTGAGATCTGGCCTTCATCGACGACGCCGAGAGT 1080 Db 1006 GCCCTGGATTATCCCAGCGAGACCTGGCCTTCATCGACGACTCCTCGGATACGCAGAGC 1065 Qy 1081 GAGCGTGGCTGGTCTCGCGCTCCTCGGGGTCGCCGACCCAACCCAACCCAACCCAACCCCAACCCCAACCCCAACCCC	AX250709 AX250709 AX250709 AX250709 ACCESSION AX250709 AX	Novel Lazumshir Novel Rotivated activated Patent: WC CENTER NAT	/codon_start=1 //proteIn_id="CRG3796.1" //broteIn_id="CRG3796.1" //db_xref="G1:1598448" //db_xref="G1:15984448" //train1at="CRG3706.1" //train1atelopHEQQAQRELGEVRE //train1atelopHECULVILYLVGGALVFRALEQPHEQQAQRELGEVRE //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFEGTIIT //train1atelopGalpernstrsnShSHSANDGSAFFTANDGSAFFTANDGAP //train1atelopGalpernstrsnShSHSANDGSAFFTANDGSAFFTANDGAP //train1atelopGalpernstrsnShSHSANDGSAFFTANDGAP //train1atelopGalpernstrsnShSHSANDGAP //train1atelopGalpernstrsnShSHSANDGAP //train1atelopGalpernstrsnShSHSANDGAP //train1atelopGalpernstrsnShSHSHSHSHSHSHSHSHSHSHSHSHSHSHSHSHSHSHS	ORIGIN Query Match Best Local Similarity 81.5%; Score 814.4; DB 6; Length 1182; Best Local Similarity 81.5%; Pred. No. 3.3e-173; Matches 973; Conservative 0; Mismatches 206; Indels 15; Gaps 2; Oy 1 ATGCGCAGCACACACTCCTGGCTCTGCTGGTGCTGCTTACTTA	Qy 121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCTGTGAGCCAGAAGAGCCTGGAGGAT 180 Db 121 GAGGTCCGAGAGAAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCTC 180 Qy 181 TTCATCAAGAGCTCGTGAAGCCTGGGGGGGGCGCAAACCCAGAACCAGCTGGACC 240 Db 181 CTCATCAAGAGGTGGTGAACCCTGGGAGGGGGGCAAACCCAGAAACCAGCTGGACC 240 C 241 AATAGCAGCAACCATCAGGAGGGGGGGGGCGCTTTTTTCTCGGGACC 310 Qy 241 AATAGCAGCAACCATCATCAGCTTGAACCTGGGCGCTTTTTTTCTCGGGACC 310 L

AUTHORS TITLE JOURNAL	Duckworth Polynucle Patent: U	& g	901 GAGCAACCZ 934 GAGCAGCCZ
FEATURES	rce	λο .	961 AGGCCCGG
ORIGIN	/mol_type="genomic DNA"	음 &	
Query M Best Lo Matches	Query Match Best Local Similarity 81.5%; Score 814.4; DB 6; Length 1218; Best Local Similarity 81.5%; Pred. No. 3.3e-173; Matches 973; Conservative 0; Mismatches 206; Indels 15; Gaps 2;	À 6	
ò	1 ATGGGAGGACCACACTCCTGGCTGGTGCTGGTGCTGCTTTACTTGGTATCTGGG 60	ði t	1081 GAGCGTGG
qq	37 ATGCGCAGCACCACGCTCCTGGCCTGGTGGTCTTGCTTTACTTGGTGTCTGGT 96	g 8	1141 AAGCCTTCC
ð í	GCTCTAGTGTTCCAGGCTCTGGAGCACCTCACGAGCAGCAGGCTCAGAAAAATGGAT	3 8	
g	GCCCTGGTGTTCCGGGGCCCTGGAGCAGCCCCACGAGCAGCAGCCCCAGAGGGAGCTGGGG		
o S	121 CATGGCCGAGACCAGTTTCTGAGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT 180	RESULT 8 AX278168 LOCUS	
8 1	TTCATCAAGCTCCTGGTTGAAGCCCTGGGGGGGGGGGGAAACCCAGAAACCAGCTGGACC	ACCESSION VERSION	ION Sequence 3 ON AX278168 AX278168.1
qq	21/ CTCATCAAGGGGGGCTGATGCCCTTGGGAGGGGGGGGCCCAGAAACCAACTCGACC 2/6	SOURCE	Homo
o d	241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300 277 AGCAACAGCAGCAGCTCAGCCTGGGCCTGGGCAGCGCCTTCTTTTTCTCAGGGACC 333	ORGANISM	_
λō	301 ATCATCACCATCGGCTATGGCAATATAGTCTTACACAGATGCCGGGCGTCTTT 360	REFERENCE	
Ор	334 ATCATCACCACCATCGCCATGGCAATGTGGCCCTGCGCAATGCCGGGCGCCTCTTC 393	TITLE JOURNAL	AL Patent: WO MILLENIEM
ò		FEATURES	rce
qq	394 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG 453		
& #	421 GACCGGCTGGGCTCCTCTGCGCCGGGGCATCGCCATCGAAGCAATCTTCTTGAAG 480 481 [CDS	
3 8	TGGCATGTGCCACGGGGGTGAGAAGTCTGTCGCAGAGTCTCTCTGCTGATCGGC		
qa	rggcacgtgccaccggagctagtaagagtgctgtcggcgatgcttttcctgctgatcggc		
λõ	541 TGCCTGCTCTTTGTCCTCACTCCTACCTTCTCTACATGGAGAGCTGGAGCAGCAGCAG 600		S E I
QQ	574 TGCCTGCTCTTTGTCTCACGCCCACGTTCTGCTATATGGAGGACTGGAGCAG 633		3 A E
ò f	601 TTAGAAGCCATCTACTTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA 660	ORIGIN	8 8 8
ò	CCCGGCGATGGCACACAGAACTCTCCAGCCTACCAGCCGGTGGTTCTGGATC	Query	Query Match
qq	694 GCCGGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC 753	Best Loo Matches	Best Local Similarity Matches 973; Consei
È	721 TIGITIGGCCTAGCCTACGCGCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA 780	È	1 ATGCGCAGG
අු	754 criecredectriactricecteadricreaecaecareaadriodeaacriedadra 813	qq	79 Argedekad
È	781 GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840	ò	61 GCTCTAGTO
අු	သူ့မှာ	đ	139 decendare
ò	GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCGCAGAGGAG	ð í	121 CATGGCCG
අු	874 GGCACAGTGACAGCGCGTGACCCAGCGAGCCGGCCCCCCCC	9 0	199 GAGGTCCG

```
/protein_id="CAD10537.1"
//brotein_id="CAD10537.1"
//brotein_id="CAD10537.1"
//brotein_id="CAD10533"
//translation="WTTAPQEPPARPLQAGSGAGPAPGRAMRSTTLLALLALULYLYLY
SGALVFRALEQPHEQAQRELGEVREKFLRAHPCVSDQELGLLIKEVADALGCGADPE
TNSTSNSSHSAMDLGSAFFFSGTITTTGVGNVALRTDAGRLFCTFYALVGTPLFGTI
LAGVGDRLGSSLRHGIGHIEAIFLKWHVPPELVRVLSAMLFLIGCLFVLTPTFVPC
TYTGNWLRVVSRTTRAEMGGLTAQAASWTGTVTRARVTQRAGPPEKQDPLAPPF
CPAQPLGRRPSSPSPPEKAQPPSASALDYPSSNTARVTQRAGPAPPPEKGDLLPPPF
CPAQPLGRRPSSPSPPEKAQPPSSALDYPSSNTARTUESSSDTQSERGCFLEPRAP
GRRRRPPPRKPVRFRGFGPLPRASALDYPSSNTAFIDESSDTQSERGCFLEPRAP
                                                                                                                                                                                                  ATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                            SCTGTGCCCTGCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCAACCCAAA 1140
                                                                                                                                                                                                                                                                                                                             ATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGTTCCCCGCCCACGGCCTCG 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                   SCICCCCIGCACCCGCAGAGGTIGAGACTCCGTCCCCCCCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAT 01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3CACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGT 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAGACCAGTITCTGAGGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT 180
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCACCACACTCCTGGCTCTGCTGGCACTGCTGCTTTACTTGGTATCTGGG
                                  68.2%; Score 814.4; DB 6; Length 1257;
ty 81.5%; Pred. No. 3.3e-173;
ervative 0; Mismatches 206; Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                    CCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         n,M.A.
novel human twik molecule and uses thereof
0 0177329-A 3 18-OCT-2001;
PRARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear

    ->1257
/note="unnamed protein product"
/codon_start=1

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .1257
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1257 bp
3 from Patent W00177329.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L GI:16605232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ens (human)
```

```
GACCGGCTGGGCTCCTCTGCGCCGGGCATCGGCCCACATCGAAGCAATCTTCTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                     Length 1408;
                                                                     Glucksmann, M.A.
12303, a novel human twik molecule and uses thereof
Patent: WO 0177329-A 1 18-OCT-2001;
MILLENIUM PHARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                      Score 814.4; DB 6;
Pred. No. 3.2e-173;
0; Mismatches 206;
                                                                                                                                                     84. -. 1343
/note="unnamed protein product"
                                                                                                             1. .1408
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                        /codon start=1
/protein_id="CAD10536.1"
/db_xref="GI:16605231"
         GI:16605230
                                                                                                                                                                                                                                                                                        Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative (
                           (human)
                      .
Homo sapiens
                                     Homo sapiens
AX278166
AX278166.1
                                                                                                                                                                                                                                                                                                                                               162
                                                                                                                                                                                                                                                                                                                                                                                                                     282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                61
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                      source
                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                       CDS
                                                                                                           FEATURES
                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGTGGCTGTCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1203
                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                  GIGICCCGCCGAACTCGGGCAGAGGATGGGCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                              GGCACAGTGACAGGGGGAGTGACCCAGCGAACTGGGCCCCAGGCGCCCCGCCGCCGAGAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                        675
                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                              795
                                                                                                                                                                                                                                                                                                                               TIGITIGGCCIAGCCIACTICGCCICAGIGCTCACCACCAICGGCAACTGGTIGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                  555
                                                                                                                                                                                    540
                                                                                                                                                                                                     615
                                     AATAGCAGCAACCACCATCAGCATGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC 300
                    318
                                                       375
                                                                         ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT 360
                                                                                     420
                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                         1024 AGGCCCCGATCCCCTTCGCCCCCCGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                   TGGCATGTGCCACCGGGGCTGGTGAAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                     TGCCTGCTCTTTGTCCTCACCTCCTACCTTCTCTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                TTAGAAGCCATCTACTTATTAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                            CCCGGCGATGGCACACACTCTCCAGCCTACCAGCCGCTGTGGTTCTGGATC
                                                                                                                                                 GACCGGCTGGGCTCTCTGTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                             TICATICAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGAAACCCAGAAACCAGCTGGACC
            CICATCAAGGAGGTGGCTGATGCCCTGGAAGGGGGTGCGGACCCAGAAACCAACTCGACC
                                               TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCCIICCAGACCCCGGGGTCCIGGGCGACICCGAGACAAGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCAGCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                         556
                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                               9/9
                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                        856
                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                       481
                                                                                                                                                                                                                          541
                        259
                                          241
                                                           319
                                                                                               376
                                                                                                                361
                                                                                                                                  436
                                                                                                                                                     421
                                                                                                                                                                      496
      181
                                                                             301
                                                                                                                                                                                                                                                                                                                                                                  8~8
B~8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                     g
                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                gg
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                          상
                                                                                                                                                    8 8 8
                                                                      장염
                    g
                                          S G
       8
```

RESULT 9
AX278166
LOCUS
DEFINITION

DNA AX278166 1 from Patent WO0177329.

linear

셤 8 01-NOV-2001 PAT

639 541

600

TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG

638 540 698

/translation="wittapogeparploaggagpapgrammsttlallalulivilu"
sgalvpraleophecoagrelgevrekflaahpcvsdogelgilikevadalggadpe
sgalvpraleophecoagrelgevrekflaahpcvsdogelgilikevadalggadpe
liagvodrlgssalmalgalffesgrilttfgvanvalrammerligeri 480 2 300 360 420 578 240 458 518 221 120 281 180 341 401 9 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTTCTCGGGGACC TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGGTGGCGGAGTCGGG GCTCTAGTGTTCCAGGCTCTGGAGCGCTCACGAGCAGCAGGCTCAGAAAAAAGGAT 121 CATGGCCGAGACTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACAGCTGGACC ATCATCACTACCATCGGCTATGGCCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT 402 Agcaacaccaccac---rcagccrggaaccrggaaccrggaaccrrcrrrrrcrcaggaacc ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG Gaps

```
958 CTGGAGGCCATCTACTTATGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 GCCTGGTGTTCCGGGCCCTGGAGCAGCCCACGAGCAGCAGGCCCAGAGGGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481 GAGGTCCGAGAGAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGCTGGGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              718 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCGGCTGGGCTCTCTCTGCGCCGGGCATCGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           838 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 TTAGAAGCCATCTACTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                           /codon start=1
/product="2P domain potassium channel"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 68.2%; Score 814.4; DB 9; Best Local Similarity 81.5%; Pred. No. 3.2e-173; Matches 973; Conservative 0; Mismatches 206;
                                                                                                                                                                                                               note="synonym: TRAAK-1"
        sapiens
                                                                                                     /map="11q13.1"
/tissue_type="brain"
1. .1544
/gene="KCNK4"
  /organism="Homo sapien
/mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                        361. .1542
/gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                 gene
                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCCGGCTCCCCTGCACCCGCAGGAAGGTTGAGACTCCGTCCCGCCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081 GAGCGTGGCTGTGCCCTGGCGTCGGGGTCGCCGCCGCCGACCCCAACCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1227 GAGCGCGCCCCCCCCCCCCCCCGCCCGAGAGGTCGCCGCCCCCAAATCCCCCCCAGG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRI 13-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1544)
Chapman, C.G., Meadows, H.J., Godden, R.J., Campbell, D.A.,
Duckworth, M., Kelsell, R.E., Murdock, P.R., Randall, A.D., Rennie, G.I.
and Gloger, I.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (21-MAR-2000) Biotechnology & Genetics, SmithKline
Beecham Pharmaceuticals, New Frontiers Science Park (North), Third
Avenue, Harlow, Essex CM19 5AW, UK
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                        878
                                                                                                                                                                                                                                                                                                                                               938
                                                                                                                                                                                                                                                                                                                                                                                                                                                       998
                                                                               TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cloning, localisation and functional expression of a novel human, cerebellum specific, two pore domain potassium channel Brain Res. Mol. Brain Res. 82 (1-2), 74-83 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1544 bp mRNA linear PRI 13-NOV-;
domain potassium channel (KCNK4) mRNA, complete
                                                                                                               CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                      CCCGGCGATGGCACGCGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                             crecroscoroscriacrioscorosascoroscoroscoroscoroscoroscoros
                                                                                                                                                                                                                                                                                                                                                                                                   GTGTCCCGCCGAACTCGGGCAGAGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                        819 GCCGGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                           TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGCCAACTGGTTGCGAGCA
                           recerecertriristicates de contra de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra dela contra dela contra de la contra dela contra dela contra del la contra dela contra del la contra dela contra del la contra del la contra dela contra del la contra dela contra dela contra del la contra del la contra dela contra dela contra del la contra del la contra dela contra del la contra dela contra del la contra dela contra del la contra del la contra dela contra dela contra del la contra del la contra dela contra dela contra dela contra dela contra del la c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1287 AAGCCCGTGCGCCCCGCGGCCCCGGGCGTCCCCCAAAAGGCGTG
2 (bases 1 to 1544)
Chapman, C.G. and Duckworth, M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:11139499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens 2P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AF248242
AF248242.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AF248242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11042359
                                                                                                                                                                                                                                                                                                                                             879
                                                                                                                                                                                                                                                                                                                                                                                                                                                       939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1167
                                                                                                                                759
                                                                            601
                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
AF248242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                            ઠ
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

~

Gaps

120 480 180 540 240 909 300

420

9

360

717

657

420

777

480

837

540 897 9 957

Gaps

15;

Length 1730; Indels

```
/translation="MRSTTLIALLALVILVSGALVFRALEQPHEQQAQRELGEVRE
KFLRAHPCVSDQELGLLIKEVADALGGGADPETNSTSNSSHSAWDLGSAFFRSGTIIT
TIGYGNVALRYDAGALFCIFYALVGIPLFGILLAGVGDRLGSSLRHGIGHIEAIFLKW
HVPPELVRVLSAMLFILIGCLLFVLTPTFVPCYMEDWSKLEAIYFVIVTLTTVGFGDY
VAGADDRQDSPAYQPLVWFWIILGLAYFASVLTTIGNWLKVSRTRAMGGLTAQAA
SWTGTVTARVTQRAGPAAPPPEKEQPLLPPPPCPAQPLGRRRSPSPFRKAQPPSFPT
V"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGITITGGCCTAGCCTTCGCCTCAGTGCTCACCCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                reccreercring; cercerceracerregiente en anagage agage 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCGGCGATGCCACGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCATGTGCCACCGGGGCTGGTGAGAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAGAAGCCATCTACTTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCCAGCGCCTTCTTTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGGCTGGGCTCTCTGCGGCGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TICATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                Angegeraceacacacrecreserrersecresearcresrerracringerarcress
                                                                                                                                                                                                                                                    Score 814.4; DB 9;
Pred. No. 3.2e-173;
0; Mismatches 206;
                                                                                                                                                                                                                                                              68.2%;
ilarity 81.5%;
Conservative
                                                                                                                                                                                                                                                                                          al Similarity
973; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SM Homo Sapiens
Edwaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1730)
S Ozafta,A. and Vega-Saenz de Miera,E.
Cloning of two transcripts, HKT4. La and HKT4. Lb, from the human two-pore K+ channel gene KCNK4. Chromosomal localization, tissue distribution and functional expression

L Brain Res. Mol. Brain Res. 102 (1-2), 18-27 (2002)
E 2 (bases 1 to 1730)
S Ozafta,A. and Vega-Saenz de Miera,E.C.
Direct Submission

L Submitted (21-ARR-2000) Physiology and Neuroscience, New York
University School of Medicine, 550 First Avenue, New York, NY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRI 14-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCGTGGCTGCCTTCGGGGTTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCCGGCTCCCTGCACCCCGCAGAGATTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                      1257
                                                                              1077
                                                                                                                                                                              1137
                                                                                                                                                                                                                                                            960
                                                                                                                              780
                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                         ĠAĠĊAĠĊĊAĊĦĠĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                   TIGITIGGCCIAGCCIACTICGCCICAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                            GTGTCCCGCCGAACTCGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGGTGGAACC
                                                                                                                                                                                                                                                                                                                        GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGCCAGGAAG
                                1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1730 bp mRNA linear PRI 14-
pore K+ channel KT4.1a mRNA, complete cds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> давесттесава се се вветестве в се тесе в в тесе в в тесе в се тесе в </u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCCGTGCGGCCCCGGGCCCCGGGGTCCCCGAGACAAAGGCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mouse TRAAK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ဌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="two pore K+ channel
/protein id="AAK49389.1"
/db_xref="GI:13925515"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="leak channel; similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. 1730

Corganisms-Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/chromosome="11"

/map="11913"

242. 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AF259500.1 GI:13925514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AF259500
Homo sapiens two p
AF259500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10016, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                             1018
                                                                                                                                                                                        1078
                                                                                                                                                                                                                                                                                     1138
                                                                                                                                                                                                                                                                                                                                                                                  1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1258
                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                               661
                                                                                                                                          721
                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
AF259500
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                           8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                           8 8 8
                                                                                                                                                                           유
장
                                                  à 8
                                                                                                                                        ò
```

1138

1078

840

1018

780

898 720 958

778

900 838 99

718 540

538 360 598 420 658 480

300

240

481

361 180 421

300

425 360 485 420 545 480 605

8 8

8 8

ઠે 8 B 셤 Š a

```
GAGCGTGGCTGTGCCTGGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            726 CTGGAGGCCATCTACTTGTCATAGTGACGCTTACCACCGTGGGCGTTTGGCGACTATGTG
                                                                                                                                   249 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGAGCGACCAGGAGCTCGTCTC
                                                                                                                                                                                                                                                                                            426 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546 GACCGGCTGGCTCCCCCCCCGGCCATGGCTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             846 CIGCICGGCCTGGCTTACITCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                    GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAATGGAT
                                                                     GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACAGCCAGAGCCAGAGGAGCTGGGG
                                                                                                                121 CATGCCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                               309 crcarcaaggaggregerigargcerregaaggegegegegegegegegegegegegegege
                                                                                                                                                                                                                                                                      AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCCTTCTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                      ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTATCTTCTATGCACTGGTGGGATCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            486 IGCAICTITIAIGCGCIGGIGGGGAIICCGCIGITIIGGGAICCIACTGGCAGGGGICGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACCGGCTGGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541 TGCCTGCTCTTTGTCCTCCTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                666 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       786 GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGGCGCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1026 dadcadeccacrace-----recerceacedecererecadeceadecerdede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                          TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCATGTGCCACCGGGGCTGGTGAGAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGTTTTGGCCTAGCTTTCGCCTCAGTGCTCACCCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                    61
                                                                         189
                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
8 8
                                                             셤
                                                                                                    ò
                                                                                                                                             셤
                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="MTTAPQEPPARPLOAGSGAGPAPGRAMRSTTLALLALVLLYVV
SGALVFRALSOPHEQDAQRELGEVREKFIRAHPCVSDQELGILIKEVADALGGADPE
INSTSNSSHSAMDLGSAFFSGTITTIGYGNVALRTDAGRLPCIFYALVGIPLFGIL
LAGYGDRLGSSLRAGTGHIBAIFLKMHYPPELVRYLGAMLFLLIGGLLFVLTPFFVF
YMEDWSKLEAIYFVIVTLTVGFGDYVAGADPRQDSPAYQPLVWFWILLGLAYFASVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear PRI 14-JUN-2002 mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTIGNWLRVVSRRTRAEMGGIJAQAASWTGTVTARVTQRAGPAAPPPEKEQPLIPPPP
CPAQPLGRPRSPSPPEKAQPPSPPTASALDYPSENLAFIDESSDTQSERGCPLPRAPR
GRRRPNPPRKPVRPRGPRPRDKGVPV"
                                    -----raccrecaccecercacecacecacecece
                                                                                                                AGGCCCCGATCCCCTTCGCCCCCCGAGAGCCTCAGCCGCCTTCCCCCGCCCACGCCCTCG 1246
                                                                                                                                                                              GAGCGTGGCTGTGCCTCGCGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                           ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. 1 (Dases 1 to 2747)
Ozaita, A. and Vega-Saenz de Miera, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human
tissue
                                                                                                                                                       GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                           AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCAAGGCTCA
1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (21-APR-2000) Physiology and Neuroscience, New York University School of Medicine, 550 First Avenue, New York, NY 10016, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cloning of two transcripts, HKT4.1a and HKT4.1b, from the two-pore Kt channel gene KKNK4. Chromosomal localization, distribution and functional expression
Brain Res. Mol. Brain Res. 102 (1-2), 18-27 (2002)
2 (bases I to 2747)
Ozaita.A. and Woga-Saenz de Miera, E.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                             1367 AAGCCCGTGCGGCCCCCGGGCGCTCCCCGAGACAAAGGCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 814.4; DB 9; Length
Pred. No. 3e-173;
0; Mismatches 206; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/product="two pore K+ channel KT4.1b"
/protein id="AAK49390.1"
/db_xref="GI:13925518"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
KT4.1b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51. .1310
/note="similar to mouse TRAAK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .2747
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens two pore K+ channel AF259501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF259501.1 GI:13925517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /map="11q13"
51. .1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                      GAGCAGCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                      1307 (
                                    1139
                                                                                                                1187
                                                                                                                                                                                          1247
                                                                                                                                                       1021
                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                 1141
                                                                         961
901
```

Bource

FEATURES

SOS

TITLE JOURNAL AUTHORS REPERENCE JOURNAL

RESULT 12
AF259501
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
SOURCE
ORGANISM

REFERENCE AUTHORS TITLE

540

665 600 725 99 785 720 845 780 905 840 965

CTGGATC

1080 1133

1193

9

1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG

DRIGIN

1073

960

a

g à

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081 GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCATCGAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             798
                                                                                                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              738
                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                          360
                                                                                                                    381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207 GAGCGCGGCTGCCCGCTGCCCGGCGCGCGCGCCGCCGAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781 GIGICCCGCCGAACICGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601 TTAGAAGCCATCTACTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841 GGCACAGTGACAGCGCGGAGTGACCCCAGCGGAACTGGGCCCAGCGCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721 ITGITIGGCCIAGCIACTICGCCICAGIGCICACCACCACCAACTGGITGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGGCTGGGCTCCTCTGCGCCCGGGGCATCGGCCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                559 GACCGGCTGGCCTCCCTGCCTGGCGTCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         recordencing of the control of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661 CCCGGCGATGGCACCGGGAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAACAGCAGCAC---TCAGCCTGGGACCTGGGCGCCTTCTTTTTTTTCAGGGACC
                                                                                                                                                                                                                                                                          ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                         TGTATCTTCTATGCACTGGTGGGGATCCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                              TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
AATAGGGGAACCACTCATGGGCTTGGAACCTGGGGGGGCCTTCTTTTCTCGGGGACCC
                                                                       TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAAGAAACCAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              619
                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                          382
                                                                                       181
                                                                                                                                         322
                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                       8
                                                                                                                            g
                                                                                                                                                                                        ò
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
/product="teandem pore domain potassium channel TRAAK"
/product="teandem pore domain potassium channel TRAAK"
/product="andem pore domain potassium channel TRAAK"
/protein_id="AAF64062.1"
/db_xref=10:1756915"
/db_xref=10:171676915"
/product=10:1716769150
/prod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCACAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 CATGGCCGAGACCAGTITCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF247042 2772 bp mRNA linear PRI 16-APR-2000
Homo sapiens tandem pore domain potassium channel TRAAK (KCNK4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gray, A.T.
Direct Submission
Direct Submission
Submitted (21-MAR-2000) Anesthesia, Room S 261, UC San Francisco, Submitted (21-MAR-2000) Anesthesia, Room S 261, US 513 Parnassus Avenue, San Francisco, CA 94143-0542, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the human potassium channel TRAAK
                     1194 GAGCGCGCCTGCCCCGCGCGCGCGCGCGCCGCCGCCGCCCCAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                       1194
                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1. (bases 1 to 2772)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="TWIK-related arachidonic acid-stimulated channel; potassium channel subfamily K member 4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AIGCGCAGCACACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue type="frontal lobe"
/clone lib="Schneider 00004"
/dev stage="5 months post-conception"
1. .2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 814.4; DB 9;
Pred. No. 3e-173;
0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .2772
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/chronosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone="IMAGE:2517763"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Assignment of KCNK4 encoding chromosome 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64. .1323
/gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68.2%;
llarity 81.5%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                            AF247042.1 GI:7576934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 2772)
                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                    mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 973; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gray, A.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   202
                                                                                       1141
                                                                                                                                   1254
                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                             RESULT 13
AF247042
                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
```

ò g ò

ò 셤

CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA GTGTCCCGCCGAACTGGCGAGAACGGCACAGGCTGCTGCGAGTA GTGTCCCGCCGCACTCGGGCAGAGATGGGCGCCTCACGGCTGCTGCTGCTGCAGCT GTGTCCCGCCGCAGTGACCGCGGCCTCACGGCTCAGGCTGCCAGAGCT GTGTCCCGCCGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGAGACT GGCACAGTGACAGCGAGAGATGGCCGGCCCGCCGCCGCCGCCGCCGCGCGCG	1021 GCTTGGATTACCCCAGTGAGAATCTGGCCAGTCCTCGGAAACACGAGGAGT 1080 2674 GCCTTGGATTATCCCAGCGAGAACTTGACCAGAGATCCTCGGATACGCAGAGT 1080 1081 GAGCGTGGCTGCTGCCTGCCTCCTCGGGTTCGCCGCCCCAACCCATCCAAA 1140 2734 GAGCGCGGCTGCCCCGGCGCGCCCCAGGGTCGCCGCCCCAATCCCCCAGG 2793 1141 AAGCCTTCCAGACCCCGGGGCCCCTGGGCGCCCCAAGGCCGTGCCG 1191 1141 AAGCCTTCCAGACCCCGGGGCCCCTGGGCGAGAGAGACGCCGTGCCG 1191 1151 AAGCCTTCCAGACCCCGGGGCCCCCGGGCGCCCCGAGACGCCGTGCCG 1191 1161	BC033 Homo clone BC033 BC033	Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Butheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 1500) S strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Schemen, C.M., Schuler, G.D., Altschul, S. F., Zeeberg, B., Buetow, K.H., Schefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares M.B., Bonaldo, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abraman, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunarane, P.H., Richards, S.,	Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, K., Gibbs, R.A., Fahey, J., Helton, E., Kerdeman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) 12477932	<pre>2 (bases 1 to 1500) Strausberg, R. Direct Submission Submitted (02-UUL-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,</pre>
	8 8 8 8 8	RESULT 15 BC033577 LOCUS DEFINITION ACCESSION VERYWORDS SOURCE	ORGANISM REFERENCE AUTHORS	TITLE JOURNAL MEDLINE PUBMED	REFERENCE AUTHORS TITLE JOURNAL
	 			-64	
AR338704 AR338704 DECUCUS DECUCUS ACCESSION AR338704 AR348704 AR34870	Query Match 68.0%; Score 811.4; DB 6; Length 3996; Best Local Similarity 81.4%; Pred. No. 1.4e-172; Matches 970; Conservative 0; Mismatches 206; Indels 15; Gaps 2; Qy 1 ATGCGAGCACCACACTCTGGTCTGCTGCTGCTGCTTACTTGCTTACTTGGTATCTGG 60 Db 1669 ATGCGCACCACGCTCTGGTCTGCTGCTGCTGCTTGCTTTACTTGCTTTGCTTTGTTTG	Oy 121 CATGGCCGAGACCAGTTTCTGAGGACCATCCCTGTGTGAGCCTGGAGGAT 180 Db 1789 GAGCTCCGAGAGAAGTTCCTGAGGCCCATCCGTGTGAGCGACCAGGAGCTGGGCTC 1848 Oy 181 TTCATCAAGCTCCTGGTTGAGGGCGCGAAACCCAGAAACCAGCTGGACC 240 Db 1849 CTCATCAAGGAGGGGGGGGGGGGGGCGAAACCAGAAACCAACTGACC 1908 Oy 241 AATAGCAGCAACCACTGAGGAGGGGGGGGGGGGGCCTTTTTTTT	1909 AGCAACAGCAGCCACTCAGCCTGGGGCCCTTTTTTTTTT	1	Qy 661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCTGGTTGGT

```
GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGGCGATGCCACGCGGAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC 720
                                                                                                                                             GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGGCTCAGAAAAAAGGAT 120
                                       AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCTGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------digaccitraccaccitraccaccitraccaccitraccaccitraccaccitaticac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        641 eccelecicada cecenada de contrator de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGGCTGGGCTCCTCTCTGCGCGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541 TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGAGAAG
                                                                                                                                                                                                                                                                                               CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCGCAAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             312 CTCATCAAGAAGTGGCTGATGCCCTGGAAGGGGGTGCGGACCCAGAAACCAACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481 TGGCATGTGCCACCGGGGCTGGTGAGAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601 TTAGAAGCCATCTACTTATATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                 252 GAGTTCCGAGAGATTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                549 caccederigadericereceracióe caración respecial respecial recentral recen
ATGCGCAGCACCACACTCCTGGCTCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                      132
                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
               H
                                                                                                                                                                 61
                                                                                                                                                                                                                                            192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                          g
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /weine_wion_trans; Region: Ion transport protein. This family contains Sodium, Potassium, Calcium ion channels. This family is 6 transmembrane helices in which the last two helices flamt a loop which determines ion selectivity. In some sub-families (e.g. Na channels) the domain is repeated four times, whereas in others (e.g. K channels) the protein forms as a terramer in the membrane. A bacterial structure of the protein is known for the last two helices but is not the Pfam family due to it lacking the first four helices"

/db_xref="CDD:pfam00520"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /protein_id="AAH33577.1"
/brotein_id="AAH33577.1"
/db_xref="id:21707910"
/db_xref="LocusID:56001"
/db_xref="IocusID:56001"
/db_xref="MIM:605720"
/translation="MYTAPQEEPARPLQAGSGAGPAPGRAMRSTTLLALLALLALLILVLLYLV
SGALVPRALEQPHEQQAGRELGEVREKFLRAHPCVSDQELGILIKEYADALGGGADPE
TNSTSNSSHSAMDLGSAFFFSGTIITTIGYGNVALRTDAGRLFCIFYALVGIPLFGIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                               Web site: http://www.nisc.nih.gov/
Contact: nisc.godnbgi.nih.gov
Akhter.N., Ayele.K., Beckstrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Blakesley,N.W., Granite,S., Guan,X., Gupča,J., Haghighi,P.,
Hansen,N., Ho,S.-L., Karlins,E., Kwong,P., Laric,P., Legaspi,R.,
Maduro,Q.L., Mashello,C., Maskeri,B., Mastrian,S.D., McCloskey,J.C.,
Maduro,C.L., Parseon,R., Stantripop,S., Thomas,P.J., Touchman,J.W.,
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young,A., Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at: http://image.llnl.gov Series: IRAK Plates 49 Row: Column: 1 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 15718764 This clone has the following problem: The cds is short compared to the longest cds in the locus.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
               WIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
chail: cgapbs-r@mail.nih.gov
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 pooled whole brains"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   45.4%; Score 542; DB 9; Length 1500; 70.9%; Pred. No. 1e-111; tive 0; Mismatches 185; Indels 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1500
|gene="KCNK4"
|/note="synonyms: TRAAK, DKFZP566B164"
|db_xref="LocusID:50801"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue type="Brain, adult,
/clone_lib="NIH_MGC_114"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAGVGDRLGSSLRHGIGHIEAIFL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5200313"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
/product="KCNK4 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 db_xref="MIM:605720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   393. .536
/gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                   Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 70.9
Matches 846; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                   REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
```

604

540

604

9 604 99

548

371 300 428 360 488 420

251

988

928 960

840

820 900 880

780 760

700

g ઠે

중 염

Search completed: February 2, 2005, 19:03:01 Job time : 5280 secs

THIS PAGE LEFT BLANK

```
February 2, 2005, 14:16:02; Search time 652 Seconds (without alignments) 9613.204 Million cell updates/sec
                                                                                                                                                                           US-09-655-272-1_COPY_284_1477
1194
1 atgcgcagcaccacactcct......gagacaaggccgtgccggtg 1194
                                                                                                                                                                                                                                                                                                                                           8269772
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                      4134886 segs, 2624710521 residues
                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                        OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                    IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genesequ2000s:*
genesequ2001as:*
genesequ2001bs:*
genesequ2002as:*
genesequ2003as:*
genesequ2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         geneseqn2003cs:*
geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N_Geneseq_23Sep04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqn2004s:*
                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                               Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                          Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Aaz10606 cDNA enco	Aaa27105 Human h-T	Aah78636 Human mec	Aaa27106 Human h-T	Aah99922 Nucleotid	Adi27937 Human TWI	Adh51640 Human 123	Aah99921 Nucleotid	Adk52549 Hematolog	Adh51638 Human 123	Adi27935 Human TWI	Aad58498 Human pot	Adp21365 Gene KCNK	Abx91950 Human G p	_	Adq98525 DNA encod	Abx91949 Human G p	Adb48285 Novel hum	Aas11984 Human cDN	Aah78646 Human mec	7 Y remit \$720e44
SUMMAKIES	ID	AAZ10606	AAA27105	AAH78636	AAA27106	AAH99922	ADI27937	ADH51640	AAH99921	ADK52549	ADH51638	AD127935	AAD58498	ADP21365	ABX91950	AAS08652	ADQ98525	ABX91949	ADB48285	AAS11984	AAH78646	ARA09473
	DB	2	٣	4	۳	9	12	12	9	10	12	12	10	12	80	5	ß	8	σ	Ŋ	4	4
	* Query Match Length DB	1794	1182	1182	1218	1257	1257	1260	1408	1408	1408	1408	2772	2772	3945	3996	3996	3996	3996	3945	1337	1265
•	% Query Match	100.0	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.0	68.0	68.0	68.0	68.0	67.8	51.3	28.8
	Score	1194	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	811.4	811.4	811.4	811.4	811.4	809.8	612.6	343 4
	Result No.		8	Ю	4	ហ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	2.1

Ad181195 DNA u Ad181194 DNA u Ad181194 DNA u Ad27459 Human Ad27451 Human Ad607451 Human Ad60745 Human Ad406745 Human AD44968 Human AD44968 Human AD44968 Human AD44968 Human Ad4406 Novel Ad21050 Human Ad4406 Novel Ad4406 Human Ad4406 Human Ad4406 Human Ad4406 Human Ad200354 Human Ad2003564 Human Ad2003564 Human	Aas12169 Human pot Aas12182 Human pot	ENTS				e potassium channel protein TRAAK.	nel protein; TRAAK; ic acid; riluzole; heart disease; diovascular disease; arrhythmia; hormone secretion abnormality;								Lesage F, Duprat F;		channel, used to screen for specificents for heart and nervous system		mechanically sensitive potassium channel
ADL87195 ADL87194 AAD77258 AAD27459 AAD34451 ABZ71503 ADBC2909 ADBC2909 ADBC2909 ADRC2909 ADRC2909 ADRC3909 ADRC300040 ADRC300040 AAD17497 AAD17497 AAD17497 AAD17497 AAD17497 AAD17497 AAD17497 AAD17497	AAS12169 AAS12182	ALIGNMENTS	94 BP.			gensitive	sium chan rrachidon spsy; car anoxia;		alifiers				5.	SCI.	X,		ally sensitive potassium potential therapeutic age	·c	ø
112 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	4 4		17		<u>}</u>	cally	potas acid; ; epi]		ion/Quali 1480 = a			040	272	RECH 8	lung		ve j ieraj	French	encodes
432 432 1614 1614 1632 1632 1632 2002 2005 2005 2006 2006 1099 1099 1099 1099 1199 1199 1199 1	2130 2130		; cDNA;		ent	mechanic	sensitive potass ed fatty acid; e m disease; epile tion; ischemia; ase; ds.		Location 28414 /*tag=			9WO-FR000404	8FR-0000272	NAT	, Lazdunski	46.	sensiti tial th	40pp; Fr	
4466666666666			standard;		(first	ĕ ø	y sens ated fi tem di ration sease;		707			66	98	CENT	ink M,	9-551038/46 AAY30647.	lly oten	1,4	sequence
22 22 22 22 22 22 22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	ਜਜ		stan		66	ding	ששטים			-A2.	. 66	66	98;	CNRS	Fi	-551 AY30	0	Fig	
22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19.		10606	Z10606;	-NOV-19	cDNA encoding	Mechanically se polyunsaturated nervous system neurodegenerati muscular diseas	Mus sp.	Key CDS	WO9945108	10-SEP-19	3-FEB-199	5-MAR-199	(CNRS) CI	Honore E,	WPI; 1999-9 P-PSDB; AA	New mechanically modulators, pote disorders.	aim 6;	The present
00000000000000000000000000000000000000	4 4 5	,	RESULT 1 AAZ10606 ID AAZ	' 2	18	밁.	M Q II II	ž	% D	W	7(23	0	ະ	Ħ	Σď	žĔŪ	ប	Ē
			RESUL AAZ10 ID	X X X	E X	日?	\$\$\$\$\$\$	383	XELL!	3 E S	(요)	선 문 3	1 E 3	E	4 급 3	888	ZETES	S S	វូមួ
e w	ij k	ì.																	

```
1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1063
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                              403
                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                             ATGCGCAGCACCACCACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            883
protein designated TRAAK. The protein is activated by polyunsaturated fatty acids, particularly arachidonic acid, and by riluzole. The protein is used to screen for specific modulators which are useful for treating or preventing diseases of the heart and nervous systems in humans and animals, e.g. epliepsy, carditovascular disease (arrhythmia), neurodegeneration (particularly where associated with ischemia or anoxia), abnormalities of hormone secretion and muscular disease. The protein itself may be used to treat these diseases. Antibodies specific for the protein are used to detect it in tissues, also as therapeutic inhibitors or activators
                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                               CATGGCCGAGATTTCTGAGGACCATCCCTGTGTGCAGAAGAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTGCTCTTTGTCCTCACTCCTACCTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                               GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rerarcriterarecaeregregeareceaereceaerecegearecege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGGCTGGGCTCCTCTCTGCGCCGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rescarerisceaccesceresreadaastrererecescarecrerrecreeresres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAGAAGCCATCTACTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tracaaccarcractristraracreaccrecretaccecretaccearrargra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGGCGATGCCACCGGCAGAACTCTCCAGCCTACCAGCCGCTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rretriredectracerrecereagecreacereaceaecaregearearearea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arcarcactaccarcectareecaararacrcrracacacacaceceeecrcrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                          Length 1794;
                                                                                                                                                                                         Seguence 1794 BP; 348 A; 574 C; 494 G; 378 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                       100.0%; Score 1194; DB 2;
100.0%; Pred. No. 4.5e-313;
iive 0; Mismatches 0;
                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 1194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               944
                                                                                                                                                                                                                                                                                                                             284
                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1004
                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
   8888888888888888
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
1020
                                                                                                                              1303
                                                                                                                                                        1080
                        1183
                                                                          1243
                                                                                                                                                                                 1363
                                                                                                                                                                                                                                    1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Functional genomics was used to identify h-TRAAK polypeptides and h-TRAAK polymucleotides from human tissue samples. h-TRAAK polypeptides have homology to the 2P domain potassium channel family of polypeptides. The h-TRAAK polypeptides and polymucleotides may be used in diagnostic assays for conditions related to h-TRAAK imbalance and for identifying agonists
                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  potassium channel treatment of h-TRAAK
             AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCGCCCACGGCCTCA
                                                                 GGCACAGTGACAGCGCGAGTGACCCCAGCGAACTGGGCCCAGCGCCCCGCCGCCAGAGAAG
                                                  AGGCCCGGCTCCCCTGCACCCGCAGAAAGGTTGAGACTCCGTCCCCGCCCCACACGCCTCA
                                                                                                                                                        GCTCTGGATTACCCCCAGTGAGAATCTGGCCCTTCATCGACGAGTCCTCAGACACACGAGAGT
                                                                                                                                                                          GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGACGACTCCTCAGACACGCAGAGT
                                                                                                                                                                                                           GAGCGTGGCTGTGCCTCGGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA
                                                                                                                                                                                                                                1364 GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAAA
                                                                                                                                                                                                                                                             AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                            AAGCCTTCCAGACCCCGGGGGCCGTCCTGGGCGAGACAAGGCCGTGCCGGTG 1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disease; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2P domain potassium channel; neurodegenerative disease; stroke
psychiatric disorder; neurological disorder; Gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel isolated h-TRAAK polypeptides belonging to the family of polypeptides, useful for the diagnosis and related disorders, e.g. depression and schizophrenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            h-TRAAK; potassium channel polypeptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "h-TRAAK protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
1. .1182
                                                                                                                                                                                                                                                                                                                                                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Page 21; 35pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Human h-TRAAK cDNA sequence #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                       AAA27105 standard; cDNA; 1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-GB003634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98GB-00024048.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .1182
/*tag= a
/product= '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Μ̈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Duckworth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-365583/31.
                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAY94425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200026253-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chapman CG,
                                                                                                                                                                                                                                                                                                                                                                                                         04-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-MAY-2000
                                                   901
                                                                          1184
                                                                                                      961
                                                                                                                              1244
                                                                                                                                                        1021
                                                                                                                                                                                  1304
                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                       1424
                                                                                                                                                                                                                                                                                                                                                                               AAA27105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                           AAA27105
                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                        셤
                                                 ò
                                                                     원
                                                                                                    ð
                                                                                                                         엄
                                                                                                                                                       8
                                                                                                                                                                          g
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                   g
```

1065

1020 1005

945 960

1125

88888888888

요

ઠે a ઠે 셤 ò 셤 Š В ò 셤 ò 셤 ઠે

ð 셤 Š g ઠે

```
The present sequence encodes a human mechanically sensitive potassium channel which is activated by polyunsaturated fatty acids (particularly arachidonic acid (AA)) and by riluzole. The polypeptide is designated human TWICK-related AA-activated potassium channel (hTRAAK). The hTRAAK gene is located on chromosome 11q13. hTRAAK is involved in regulation of
                                                                                                      AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCGCCCCACGGCCTCA
                                                                                                                                           946 AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCAAGGCCTCG
                                                                                                                                                                             1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                  1066 GAGCGCGGCTGCCCGCGCCCCGCGAGATCGCCGCCCAAATCCCCCAGG
                                                                898 caccaccacrec----recordadecorgical candidates
                              1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                             1126 AAGCCCGTGCGGCCCCGGGCCCCCGGGCGTCCCCGAGACAAGGCGTGCCGTG 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         potassium channel, useful for treating
1 in drug screening, is activated by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; mechanically sensitive potassium channel; riluzole; TWICK, polyunsaturated fatty acid; arachidonic acid; hTRAAK; chromosome neuronal excitation; muscle excitation; cardiac rhythm; anoxia; hormone secretion; cardiac disease; vascular disease; ischemia; nervous system disorder; endocrinal disease; muscle disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease; epilepsy; cardiac arrhythmia; neurodegeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "mechanically sensitive potassium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human mechanically sensitive potassium channel hTRAAK cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .1182
/*tag= a
//product= "mechanical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 32-33; 37pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maingret
                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH78636 Btandard; cDNA; 1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-MAR-2000; 2000FR-00003264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAR-2001; 2001WO-FR000758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diseases and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polyunsaturated fatty acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New mechanically sensitive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Œ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lesage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-590037/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAG67777.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200168670-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lazdunski M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-SEP-2001
                                                                                                      961
                                106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 3
AAH78636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                         셤
                                                       용
                                                                                                      ઠ
                                                                                                                                 g
                                                                                                                                                                             Š
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    897
                                                                                                                                                                                                                                                                                                                                                                                 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGGCCCAGAGGGAGCTGGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGGGACCAGGAGCTGGGCCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and antagonists of h-TRAAK polypeptides. The h-TRAAK polypeptides and polynucleotides may also be useful for treatment and prevention (e.g. as vaccines) of certain diseases, such as pain, psychiatric disorders including depression and schizophrenia, neurodegenerative disease including Alzheimer's, stroke and head trauma and neurological disorders including migraine and epilepsy. The present sequence is human h-TRAAK-1 CDNA sequence #1
                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CIGCICGGCCIGGCTIACTICGCCICAGIGCTCACCACCATCGGGAACTGGCTGCGGAGIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAACAGCAGCCAC---TCAGCCTGGGACCTGGGCAGCCCCTTCTTTTTCTCAGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCGCCTGGGCTCCTCTCTGCGCCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACCGGCTCGTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCACGTGCCACGGAGCTAGTAAGAGTGCTGTGCGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTGCTCTTTGTCCTCCTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      crecadeccarcracrratercaracreacecrraceacerecesecerrace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGCCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                         ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                           Arececaecaccaccaccrecrecrecrescrescrescrescraterracrisereres
                                                                                                                                                                                                                                                                                                                                                                                                                        CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGGGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        recarcititarececresisesarirececretitiesearecracieseaseces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              recerecerereresececeacerreserrerecrarareaseacerasease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGCCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGITIGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                Length 1182;
                                                                                                                                                            G; 217 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTT
                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                            Score 814.4; DB 3;
Pred. No. 3.2e-210;
0; Mismatches 206;
                                                                                                                                                          Sequence 1182 BP; 180 A; 408 C; 377
                                                                                                                                                                                              Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    838
                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
```

셤

δ

원

ઠ

원

8

유

g ò 셤

8

88.

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                          셤
                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                         ò
                                             8
                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGCCGCCAGAGG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGGCTCAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crasasasccarcracraricaras de accerrace con consecuencia de contra 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIGITIGGCCTAGCCTACTICGCCTCAGIGCTCACCACCATCGGCAACIGGTIGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGICCGAGAGAAGITCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arcarcaccaccarcactrareccareresecresecacacacacacacacces
                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                  Cells that express hTRAAK, designated to screen for modulators of hTRAAK activity. Such modulators are potentially useful for prevention or treatment, in humans and animals, of: cardiac and/or vascular disease; nervous system disorders associated with ischemia and anoxia; endocrinal diseases associated with anomalous hormone secretion or muscle diseases, and retinal diseases. Typical examples are epilepsy, cardiac arrhythmia
cardiac rhythm and secretion of hormones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crcarcaaggaggregorigarecerregagggggggggegegegegegagggaacregaee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Agcaacaccaccac---roadcordegaccrosdecaccorrorrirricroadgaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           recarcitriarececieresesarirececierireseareciacieseseseses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCGGCTGGGCTCCTCTCTGCGCCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       recerecretrirerecreaceceaecricererrerecrararadeaecaereaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGCCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGTCCCGCCGAACTCGGCCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                    1 ATGCGCAGCACCACACTCCTGGCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 reecacereccaceeaecraeraadaerecrereecearecrrrrecrecreared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                Length 1182;
                                                                                                                                                                                                                              Sequence 1182 BP; 180 A; 408 C; 377 G; 217 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTT
                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                Score 814.4; DB 4;
Pred. No. 3.2e-210;
0; Mismatches 206;
and muscle excitation,
                                                                                                                                                                                                                                                                                68.2%;
ilarity 81.5%;
Conservative
                                                                                                                                                                                   neurodegeneration
                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                 973;
                                                                                                                                                                                                                                                                                   Query Match
Best Local S:
Matches 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
88888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
1020
                                                                                                                                                               1080
                                                                                                                                                                                               1065
                                                                                                                                                                                                                                                            1125
                                                                                                                   946 AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCCTTCCCCGCCCACGGCCTTCG 1005
                                                                                                                                                                                                                                GAGCGIGGCTGIGCCCTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Functional genomics was used to identify h-TRAAK polypeptides and h-TRAAK polynucleotides from human tissue samples. h-TRAAK polypeptides have homology to the 2P domain potassium channel family of polypeptides. The h-TRAAK polypeptides and polynucleotides may be used in diagnostic assays for conditions related to h-TRAAK imbalance and for identifying agonists and antagonists of h-TRAAK polypeptides. The h-TRAAK polypeptides and polynucleotides may also be useful for treatment and prevention (e.g. as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    potassium channel
treatment of h-TRAAK
GGCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGGCCCGCCGCCCCCCGCCGCCGAGAAG 897
                                                                                                                                                                                     1006 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGAGGTCCTCGGATAGGCAGAGC
                                                                                                                                                               GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                 1066 GAGCGCGGCTGCCCGCTGCCCGCGCGCGAGGTCGCCCCAGG
                                                              898 gadcagccacrec-----récerceacecerereres
                                                                                                AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                GAGCAACCACTCCTGCCTCTTTTGCCGGCACCGCCTGCTGTTGTTGAGCCAGCGGG
                                                                                                                                                                                                                                                                                             1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                               disease; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; h-TRAAK; potassium channel polypeptide;
2P domain potassium channel; neurodegenerative disease; stroke
psychiatric disorder; neurological disorder; Gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel isolated h-TRAAK polypeptides belonging to the family of polypeptides, useful for the diagnosis and related disorders, e.g. depression and schizophrenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= a
/product= "h-TRAAK protein #2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Page 21 and 22; 35pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human h-TRAAK cDNA sequence #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                              CDNA; 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98GB-00024048.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-GB003634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . .1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Duckworth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-365583/31.
P-PSDB; AAY94426.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                              AAA27106 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200026253-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-NOV-1998;
07-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chapman CG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-MAY-2000
   838
                                                                                                                                                                  1021
                                                                                                                                                                                                                                 1081
                                   901
                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Key
```

1140

```
AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                       1102 gagcigicagecrigicacececececececes as a seconda de consece de consecuencia de consecuencia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel isolated 12303, a human tandem of P domains in a weak inward rectifying potassium channel-related potassium channel subunit polypeptide useful for treating Alzheimer's disease, restenosis, migraine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tailden O. F Tourish in a weak live decided to the central nervous system disorder; Alzeimers disease; Tourish and the central nervous system disorder; Alzeimers disease; Tourish and the control of the central nervous system disorder; Lewy diffuse body disease; senile dementia; an neurodegenerative disorder; Lewy diffuse body disease; senile dementia; an unucodegenerative disorder; pepilepsy; AIDS related dementia; an progressive supranuclear palsy; Jakob-Creutzfeldt disease; autonomic function disorder; neuropsychiatric disorder; phobia; bipolar affective disorder; neuropsychiatric disorder; phobia; antiparteriosolerotic; cytostatic; phypoensive; antidepressant; antimigraine; analgesic; vasotropic; anticonvulsant; neuroprotective; tranquilizer; neurobieptic; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        related dementia;
AGGCCCCGATCCCCTTCGCCCCCCGAGAAGCTCAGCCGCCTTCCCCGCCCACGCCTCG
                                                                                                                                                                  GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGAGT
                                                                                                                                                                                                                                                              1162 AAGCCCGTGCGGCCCCGCGGCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1215
                                                                                                                                                                                                                                                                                                                                                        AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              potassium channel; transmembrane domain; TWIK; TWIK-8; of P domain in a Weak Inward rectifying K+ channel; K+;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleotide sequence of human TWIK-8 receptor channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product= "human TWIK-8"
/partial
/note= "No 8top codon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH99922.standard; cDNA; 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-APR-2000; 2000US-0195734P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MILL-) MILLENIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag≈ a
                             GAGCAGCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-010911/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; AAG78406.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200177329-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glucksmann MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                  1021
                                                                           196
                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAH99922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         randem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
AAH99922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                     요
                                                                      8
                                                                                                                                                                  8
                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                              156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     873
                                                                                                                                                                                                                                                                                                                                                                                GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGCACAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
  vaccines) of certain diseases, such as pain, psychiatric disorders including depression and schizophrenia, neurodegenerative disease including Alzheimer's, stroke and head trauma and neurological disorders including migraine and epilepsy. The present sequence is human h-TRAAK
                                                                                                                                                                                                                                                                                                                                                                                                             GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACAGCAGCAGCAGCCAGAGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157 GAGGTCCGAGAGAGATTCCTGAGGGCCCATCCGTGTGTGAGGGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arececaecaceacerecreecerecreecesecreererrecriraciracireser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    crcarcaagagagargecrgargecergagagagagagagagagagaaagaaacrcaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTGTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    reccrecitrirerccreaceccacerregraricrecrararegasarcreaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crogadeccarcracrrrercaracreacecrraceaceregecrrreecacrarere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gecegeegeacceaegeagaerceceegeerareaecegergergerregare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           crecreecerescriacirescereagiscreaceaecarescreecerescreecerescreeceres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                    1 ATGCGCAGCACCACACTCCTGGCTGCTGGCTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Agcaacagcagccac - - reageergegaccregecagegecerrerrrrereagegece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recarcititatececreeredealirececretirecearcciacidecaesecee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGGCTGGGCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCTGCTCTTTGTCCTCACTCCTTCGTGTTCTCCTACATGGAGAGCTGGAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGITITGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                      15;
                                                                                                                                               Sequence 1218 BP; 182 A; 421 C; 395 G; 220 T; 0 U; 0 Other;
                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                        Score 814.4; DB 3;
Pred. No. 3.2e-210;
0; Mismatches 206;
                                                                                                                                                                                             68.2%;
81.5%;
                                                                                                                                                                                                                                        Matches 973; Conservative
                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                   cDNA sequence #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217
                                                                                                                                                                                                                                                                                                                                  37
                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                            97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
       888888
                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
TGCCTGCTCTTTGTCCTCACTCCTTCGTGTTCTCCTACATGGAGGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0185938P.
2000US-00518866.
2000US-0195734P.
2000US-0195993P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADI27937 standard; cDNA; 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAY-2002; 2002US-00146733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                          GAGCAGCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003165891-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-FEB-2000;
03-MAR-2000;
07-APR-2000;
11-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                     949
                                                                                                                                                                                                      964
                                                                                                                                                                                                                                                                928
                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AD127937;
 541
                                                         601
                                                                                                                   661
                                                                                                                                                                           721
                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADI27937
ID
                                                         ò
                                                                                셤
                                                                                                                   6
                                                                                                                                             셤
                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                  This invention relates to a human TWIK-8 (tandem of P domains in a weak inward rectifying K+ channel) related potassium channel subunit by DAJPgoptide. Applications of the polypeptide include: nootropic, neuroprotective, antiparkinsonian, antiarteriosclerotic, cytostatic, hypotensive, antidepressant, antimigraine, analgesic, vasotropic, canticonvulsant, neuroprotective, tranquilizer, menoteptic, in gene therapy, and as a modulator of potassium channel mediated activity in a cell, and is useful in screening assays, detection assays, predictive cell, and is useful in screening assays, detection assays, predictive cell, and is useful in methods of treatment. The polypeptide is useful as a carrier for developing modulating agents to regulate a variety of cellular processes, and is also useful as query sequence to perform a search caping public databases to, for example, identify other family members or related sequences. The polypeptide is useful for treating disorders characterized by insufficient or excessive production of TWIK-8 protein forms which have decreased, aberrant or unwanted activity compared to TWIK-8 wild type protein, e.g., potassium channel associated disorders including central nervous system disorders continued as cognitive and neurodegenerative disorders, muscular disorders, pain disorders and disorders of cellular growth, and is also anti-marke anti-marke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGGTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGCGCAGCACCACACTCCTGCTCTGCTGGCACTGGTGCTTCTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCGGCTGGGCTCCTCTCTGCGCCCGGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                 raise anti-TWIK-8 antibodies, and to screen for drugs, and is also considered useful for producing non-human transgenic animals. This sequence represents the nucleotide sequence for human TWIK-8, which differs to the sequence in AAH99922 since it does not contain the 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1257 BP; 188 A; 443 C; 404 G; 222 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 814.4; DB 6;
Pred. No. 3.2e-210;
0; Mismatches 206;
                            Claim 1; Page 122-124; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            untranglated region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1024 AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCCGCCTTCCCCCGCCACGGCCTCG 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1084 GCCCTGGATTATCCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; TWIK-8; gene; ss; ion channel family; ICF; cancer; leukaemia;
Alzhaimer's disease; Parkinson's disease; multiple sclerosis; epilepsy;
hepatic disorder; cardiovascular disorder; cytostatic; neuroprotective;
nootropic; antiparkinsonian; hepatotropic; cardiovascular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      616 recerecrerrierecereacecececerrerrerrerarandeaceacreaac
                                                                                                                                                                            TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                credadeccarcracrirercaracredececrracececerececrireceacratere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736 GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crecroecoroscriaciracecoroscricas de concaso de consecues 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCCGCCGCCAGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -------feccreáccacaecadecacadecacadecacadecacadec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ion channel family; ICF; cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1204 AAGCCCGTGCGCCCCCGGGCCCCCGGGCGTCCCCGAGACAAGGCCGTGCCGGTG 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human TWIK-8 cDNA coding region.
```

```
AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1144 gadcigicigici de de construit de constr
                                                                                                                                                                                                                       796 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAACAGCCAC---TCAGCCTGGGACCTGGGCGCCTTCTTTTCTCAGGGACC
                                                                                                                                                                                     ATCATCACTACCATCGGCTATGGCAATATAGACTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                      TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                           recarcititarececresisessarrececretiressarceracrescassesicss
                                                                                                                                                                                                                                                                                                                                                                                                                             GACCGCTGGGCTCTCTCTGCGCCGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         556 regeractreceacedaderragradaderecretecedearecrrrrecrecrearede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             616 recerecrerrierecreaceceaecricariererrerarargaagaacreaagaacaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    676 CTGGAGGCCATCTACTTAGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736 GCCGGCGCGGACCCCAGGCACGCTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGITIGGCCTAGCCTACTICGCCTCAGTGCTCACCACCCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1084 decericianirareceaseasaacericaeerreareaacaaereereearaeee
                                                              241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCCAGCGCCCTTCTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------recerceacecerereace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCCCGTGCGGCCCCGGGGCCCCCGGGCGTCCCCGAAAAGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADH51640 standard; DNA; 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                976 GAGCAGCCACTGC
   259
                                                                                                                          319
                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1204
                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADH51640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADH51640
                                                                                                                      g
                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BXXX
                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The INVENTION Figures to ININC, ININC, INCO, INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9, alpha2delta-4, 54414, or 53763 nucleic acids and proteins, useful for preventing, diagnosing and treating e.g. cancers, Alzheimer's disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGITCCGAGAGAGITCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGAGAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention relates to TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           electronic format from USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1257 BP; 188 A; 443 C; 404 G; 222 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 814.4; DB 12; Length Dred. No. 3.2e-210; 0; Mismatches 206; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Silos-Santiago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; SEQ ID NO 30; 638pp; English.
                                                  25-SEP-2000; 20000S-0235018P.
15-DEC-2000; 20000S-0235059P.
18-DEC-2000; 20000S-0256240P.
18-DEC-2000; 20000S-0256240P.
21-DEC-2000; 20000S-025688P.
23-PEB-2001; 20010S-00796720.
06-APR-2001; 2001US-00796730.
11-APR-2001; 2001US-00833081.
25-APR-2001; 2001US-00843128.
                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00964256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                          17-DEC-2001; 2001US-00024623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glucksmann MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cardiovascular disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-069000/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; ADI27936
                                                                                                                                                                                                                                                                                                                                                                                                 25-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Curtis RAJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

1080

1143

1083

1023

characterised by aberrant 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59931, 59921 or 33751 activity, for example cellular proliferative and/or differentiative disorder, brain disorder, blood vessel disorder, platelet disorder, breast disorder, corpus disorder, pancreatic disorder, lung disorder, ovarian disorder, prostate disorder, pancreatic disorder, skeletal muscle disorder, cesticular disorder, hormonal disorder, disorder associated with bone metabolism, immune disorder, inflammatory disorder, cardiovascular clisorder, anaemia, angiogenesic disorder, viral disorder, endothelial cell disorder, liver disorder, neoplastic disorder, endocrine disorder, inflammatory disorder, neoplastic disorder, endocrine disorder, instance, liver disorder, neoplastic disorder, neurological disorder of heart disorder. They may endocrine disorder, neurological disorder or heart disorder. They may bredictive medicine or pharmacogenomics. The present sequence is that of the coding DNA sequence for the human 12303 protein of the invention.

DB 12; Length 1260;

Sequence 1260 BP; 189 A; 443 C; 405 G; 223 T; 0 U; 0 Other;

```
cytostatic; vasotropic; haemostatic; nephrotropic; gastrointestinal-Gen; respiratory-Gen; muscular-Gen; osteopathic; antiinflammatory; immunosuppressive; cardiovascular-Gen; hepatotropic; virucide; analgesic; antianaemic; endocrine-Gen; neuroprotective; nootropic; cardiant; gene therapy; cellular proliferative; differentiative disorder; brain; blood vessel; platelet; breast; colon; kidney; lung; ovarian; prostate; pancreatic; skeletal muscle; testicular; hormonal; bone metabolism; immune disorder; inflammatory disorder; cardiovascular disorder; endochelial cell; liver; viral; pain; metabolic; anaemia; ngiogenesic; encopasatic; endocrine disorder; neurological; heart; tissue typing; chromosomal mapping; predictive medicine; pharmacogenomic; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Silos-Santiago I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Galvin KM,
                        Human 12303 protein coding DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Curtis RAJ, Lora JM,
                                                                                                                                                                                                                                                                                                                                                                                                01-FEB-2001; 2001US-0267076P.
20-FEB-2001; 2001US-02769481.
12-MAR-2001; 2001US-0275172P.
12-MAR-2001; 2001US-0275172P.
06-APR-2001; 2001US-00829135.
26-UIN-2001; 2001US-00894747.
                                                                                                                                                                                                                                                                                                                                                               2000US-00634669.
2000US-0229036P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-0322983P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-SEP-2001; 2001US-00957683.
27-SEP-2001; 2001US-0325854P.
                                                                                                                                                                                                                                                                                                                                                                                      2000US-0233537P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-DEC-2001; 2001US-0336936P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-00095139
                                                                                                                                                                                                                                                                                                                                                   2000US-0214176P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                      18-MAR-2003; 2003US-00391399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2002; 2002US-00062937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002US-00309804
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2004-010868/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; ADH51639.
                                                                                                                                                                                                                                      US2003219806-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glucksmann MA,
                                                                                                                                                                                                                                                                                                                                                                          31-AUG-2000; 2
19-SEP-2000; 2
01-FEB-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-2002;
                                                                                                                                                                                                                                                                                                               22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2002;
                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                    26-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                08-AUG-2000;
25-MAR-2004
                                                                                                                                                                                                                                                               27-NOV-2003
                                                                                                                                                                                       ds; 12303.
                                                                                                                                                                                                                Ношо
```

2 240 300 495 540 900 675 999 735 720 795 780 855 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGCTCAGAAAATGGAT 120 318 375 360 435 420 480 555 615 9 GCCGGCGCGACCCCAGGCAGGACTCCCCCGGCCTATCAGCCGCTGGTGTGTTCTGAAC 796 CIGCICGGCCTGCCTACTIACTICGCCTCAGTGCTCACCACCACCGGAACTGGCTGGCGAGTA 1 ATGCGCAGCACCACACTCCTGCTGCTGCTGGTGCTGCTTTACTTGGTATCTGGG 121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCAGAAGAGCCTGGAGGAT 199 GAGGTCCGAGAGAGAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC 241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 376 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCTCTTC 436 recarcitriardecericardededarrececritiracearectacresedeges GACCGGCTGGGCTCCTCTGCGCCCGGGGCATCGCCACATCGAAGCAATCTTCTTGAAG 496 gaccascracerecereceracecearescaresareacarraaascearereaas TGCCTGCTCTTTGTCCTCCTCCTTCGTGTTCTCCTACATGGAGAGCTGGAGAGCAAG TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA crecaceccarcractractractractectraceccacectraceceaeccarractractrace CCCGGCGATGGCACCCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC TTGTTTGGCCTAGCCTCGCCTCAGTGCTCACCACCATCGGCAACTGGGTTGCGAGCA 361 TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGAGTCGG TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC 556 reecacereccacedaecraeradaecrecreredecearecrrirecrecrearedec Gaps 15; Query Match 68.2%; Score 814.4; DB 12; Length Best Local Similarity 81.5%; Pred. No. 3.3e-210; Matches 973; Conservative 0; Mismatches 206; Indels 541 919 601 9/9 721 61 421 481 661 유 g g ద g ò 원 ð 엄 ò g ò 원 ò 셤 8 원 à g à d ઠે 8 8 à ઠે

brain

New 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921 or 33751 nucleic acid molecule or polypeptide, useful for diagnosing, preventing or treating e.g. proliferative or brair

cytostatic, vasotropic, haemostatic, nephrotropic, gastrointestinal-Gen, respiratory-Gen, muscular-Gen, osteopathic, antiinflammatory, immunosuppressive, cardiovascular-Gen, hepatotropic, virucide, analgesic, antianaemic, endocrine-Gen, neuroprotective, nootropic or cardiant activity. In addition, the sequences may be useful for gene therapy. The

This invention relates to novel human DNA sequences (designated 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921 or 33751) and the proteins encoded by them. The invention may be useful for the development of compounds with a

Claim 1; SEQ ID NO 20; 276pp; English

disorders

```
This invention relates to a human TWIK-8 (tandem of P domains in a weak inward rectifying K<sup>+</sup> channel)-related potassium channel subunit

C polypeptide. Applications of the polypeptide include: nootropic, concurvalisation, neuroprotective, rangualizar, neuropic, concurvalisation, neuroprotective, trangualizar, neuropic, or anticonvalisation, neuroprotective, trangualizar, neuropic, concurvalisation, neuroprotective, trangualizar, neuropic, conticonvalisation, neuroprotective, trangualizar, neuropic, confidence and in methods of treatment. The polypeptide activity in a cell, and is useful in screening assays, detection assays, predictive cell, and is useful in methods of treatment. The polypeptide is useful as a modulating agents to regulate a variety of cellular processes, and is also useful as query sequence to perform a search concesses, and is also useful as query sequence to perform a search concept public databases to, for example, identify other family members con related sequences. The polypeptide is useful for treating disorders contracted by insufficient or excessive production of TWIK-8 protein forms which have decreased, aberrant or unwanted activity compared to TWIK-8 wild type protein, e.g., potassium channel associated disorders including central nervous system disorders such as cognitive and neurodegenerative disorders, muscular clisorders, pain disorders including central nervous system disorders disorders, pain disorders and tisorders, cardiac disorders, muscular confiferentiation or migration. The polypeptide is useful as immunogen to craise anti-TWIK-8 antibodies, and to screen for drugs, and is also considered useful for producting non-human transgenic animals. This sequence represents the nucleotide sequence for human TWIK-8.
                                                                                                         Novel isolated 12303, a human tandem of P domains in a weak inward rectifying potassium channel-related potassium channel subunit polypeptide useful for treating Alzheimer's disease, restenosis, migraine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   282 GAGGTCCGAGAGAGAGTTCCTGAGGCCCCATCCGTGTGAGCGACCAGGAGCTGGGCCTC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            402 AGCAACAGCAGCCAC---TCAGCCTGGGACCTGGGCGCGCGTTCTTTTTCTCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCATCACCACCATCGGCTATGGCCAATGTGCCCTGCGCACAGATGCCGGCCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      162 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTT
                                                                                                                                                                                                                         Claim 1; Fig 1; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                            WPI; 2002-010911/01.
                                                                 P-PSDB; AAG78406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 · &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; potassium channel; transmembrane domain; TWIK; TWIK-B;
Tandem of P domain in a Weak Inward rectifying K+ channel; K+;
Tandem of P domain in a Weak Inward rectifying K+ channel; K+;
Tandem of P domain in a Weak Inward rectifying K+ channel; K+;
W central nervous system disorder; Alzeimers disease;
W parkinsons disease; multiple sclerosis; Picks disease;
W neurodegenerative disorder; Lewy diffuse body disease;
W neurodescentative disorder; Lewy diffuse body disease;
W dilles de la Tourettes syndrome; amyotrophic lateral sclerosis;
W progressive supranuclear palsy; Jakob-Creutzfeldt disease;
W progressive supranuclear palsy; Jakob-Creutzfeldt disease;
W pipolar affective disorder; neuropsychiatric disorder; phobia;
W antiparkinsonian; antiarteriosclerotic; cytostatic; hypotensive;
W nutidepressant; antimigraine; analgesic; vasotropic; anticonvulsant;
N neuroprotective; tranquilizer; neuroleptic; cancer;
N neuroprotective; tranquilizer; neuroleptic; cancer;
N neuroprotective; tranquilizer; neuroleptic; cancer;
                                                                                                                                                                                                                                                                                                                    GAGCGTGGCCTGTCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                              GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGCGCCTGCCCGCTGCCCCGCGCGCCGAGGTCGCCGCCGCCCAAATCCCCCCCAGG 1203
                                                                 915
                                                                                                                                                     975
                                                                                                                                                                                                                                                                                                                                                                                                               GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                       AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                 GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                           GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                  GAGCAACCACTCCTGCCCTCTTTGCCGGCACCGCCTGTTGTTGAGCCAGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleotide sequence of human TWIK-8 receptor channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product= "human TWIK-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
84. .1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH99921 standard; cDNA; 1408 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-APR-2000; 2000US-0195734P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-APR-2001; 2001WO-US011301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MILL-) MILLENIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200177329-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-OCT-2001
                                                                                                                                                                                                                                                                                                                                     1024
                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAH99921;
                                                                                                           841
                                                                                                                                                     916
                                                                                                                                                                                                  901
                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAH9992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             XBXBX6XDXBX1113X8X444444
                                                        a
                                                                                                                                            g
                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                         Š
                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                               ò
```

15;

Indels

Score 814.4; DB 6; Pred. No. 3.4e-210; 0; Mismatches 206;

Length 1408;

518

420

300 458 360

TCTCGGGGACC

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dadciecedecidecedecidecedecedendaderedecedecedenaaredecedenaaredecedenaaredecedenaaredecedenaaredecedenaaredec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  geceriggaritarecea de da de cerce de de cerce de de de cerce de de cerce de de cerce de de cerce de ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      drerccecceachceschenharesceschenger 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                        698
                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAGAAGCCATCTACTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     criscricesconscontracificación de a serio de contración de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999 egchcherehenedededederenenecherenedededededededededededenenene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCGCCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA
GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reschechteckedesaschachasasarscheresesanschrinderschehrese
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCTGCTCTTTGTCCTCCTCCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                            TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCCGTGCGCCCCCGGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     939
                                       579
                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
```

g

8 g à

상 음

8 임

음 장

8

g 8 g 8 셤 8 g

셤 ò 원 6 셤

ò

```
cytostatic; antianemic; antisickling; virucide; hemostatic; nephrotropic; cytostatic; thrombolytic; antiparasitic; gene therapy; hematologic disorder; cancer; Sickle Cell Anemia; Infectious Mononucleosis; Leukemia; Polycythemia yera; Lymphoma; Retinoblastoma; Hemophilia; Thrombosis; Herpes; Thalassemia; transfusion reaction; Erythroblastosis; mechanical trauma; micro-angiopathic hemolytic anemia; parasite infection; gene; ds.
                                                                                                                   Hematological disorder associated Gene ID 12303.
                            ADK52549 standard; DNA; 1408
                                                                                         (first entry)
                                                                                                                                                                                                                                                                                   sapiens
                                                                                           06-MAY-2004
                                                              ADK52549;
                                                                                                                                                                                                                                                                                    Ношо
RESULT 9
                ADK52549
```

2

221

9

240

180

281

282 181

g

8

ò

Location/Qualifiers

Key

TTCATCAGGTCCTGGTTGAAGCCTTGGAGGGGGGCGCAAACCCAGAAACCAGGTGGACC

```
The invention relates to a method of identifying a compound capable of treating a hematologic disorder comprises assaying the ability of the treating a hematologic disorder comprises assaying the ability of the compound to modulate 131,148, 199, 1233, 1366, 1531, 1782, 302, 307, 1801, 1847, 1849, 1540, 1340, 10217, 837, 1761, 8990 or 13249 nucleic acid expression or polypeptide activity, thus, identifying a compound capable of treating a hematologic disorder. The methods are useful in clayonein, preventing and treating hematological disorders, such as cancer, Sickle Cell Anemia, Infectious Monomucleosis, Leukemia, Polycythemia Vera, Lymphoma, Retinobastoma, Hemophilia, disorders associated with an increased risk of Thrombosis, Herpes, Thalassemia, antibody-mediated disorders such as transfusion reactions and smicrostychrobiastosis, mechanical trauma to red blood calls such as microsupiopathic hemolytic anemias, infections by parasites or chemical injuries. The methods may also be used for identifying compounds that injuries. The methods and also be used for identifying compounds that injuries. The methods of this sequence corresponds to one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGCTCAGAAAAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCGCAGCACCACACTCCTGGCTCTGGCACTGGTGCTGCTTTACTTGGTATCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aricciccicicacicacicciristacicacicacicacicacicaria anticacia antica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying a compound capable of treating a hematologic disorder (e.g anemia or leukemia) comprises assaying the ability of the compound to modulate the expression or activity of e.g. 131,148, 199 or 12303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 814.4; DB 10;
Pred. No. 3.4e-210;
0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kelly LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 7; 232pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Weich NS,
                                                                                                                                                                                                                                                                                 2002US-0360258P.
2002US-034476P.
2002US-0375626P.
2002US-0386494P.
2002US-0390965P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genes modulated the compound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Match 68.2%;
Local Similarity 81.5%;
nes 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-JUL-2002; 2002US-0399783P.
13-AUG-2002; 2002US-0403221P.
30-AUG-2002; 2002US-0407045P.
                                                                                                                                                                                                                                                      2002US-0354333P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002US-0394128P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-NOV-2002; 2002US-0429048P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide or nucleic acid.
                                                                                                                                                                                      2003WO-US002484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Healy A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003-731464/69.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB; ADK52550.
                                                         WO2003065871-A2
                                                                                                                                                                                                                                                                                                                  15-MAR-2002;
26-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                   06-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                 24 - JUN - 2002;
28 - JUN - 2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-JUL-2002;
                                                                                                                                                                                         28-JAN-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carroll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

(first entry)

25-MAR-2004

```
1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCCCGGCTCCCCTGCACCCGCAGGAGGTTGAGACTCCGTCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  decertedarriareceadedadecertedecertedadedecentedadeceadradecadade 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCGTGGCCTGTCCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chececeacrececececececececececes and proceed and procedure and proceed and proceed and proceed and proceed and proceed and proceed and procedure a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                        518
                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     966
                                                                                578
                                                                                                                                                                                                                                                                                                                                                                                      GACCGGCTGGGCTCCTCTGCGCCCGGGCCATCGCCACCATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                             638
CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC 401
                                                                                                                                                                 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGGGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGG
                                                                                                                                                                                                                                                                                                                 rescacerscaeceascrastaasascrecrererescearscrirricerscrearesc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     recerecterriterecreaceceaegraterecreatararegaegaeragaegae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGGCTGGGCTTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGGCGATGGCACCGCGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gecedececedececadecadeactrocecedecrareacececeresterestroreare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                      AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1227
  342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1287
                                                         241
                                                                                                             402
                                                                                                                                                                    301
                                                                                                                                                                                                                        459
                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                  519
                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                             579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                      ð
                                                                                               g
                                                                                                                                                           õ
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

standard; cDNA; 1408

ADH51638 ADH51638

ADH51638 ID ADH5 XX AC ADH5

RESULT 10

```
New 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921 or 33751 nucleic acid molecule or polypeptide, useful for diagnosing, preventing or treating e.g. proliferative or brain
                                                       cytostatic; vasotropic; haemostatic; nephrotropic; gastrointestinal-Gen; respiratory-Gen; muscular-Gen; osteopathic; antiinflammatory; immunosuppressive; cardiovascular-Gen; hepatotropic; virucide; analgesic; antianaemic; endocrine-Gen; neuroprotective; nootropic; cardiant; gene therapy; cellular proliferative; differentiative disorder; brain; plood vessel; platelet; breast; collon; kidney; lung; ovarian; prostate; pancreatic; skeletal muscle; testicular; hormonal; home metabolism; immune disorder; inflammatory disorder; cardiovascular disorder; neoplastic; endocrine disorder; neurological; heart; tissue typing; chromosomal mapping; predictive medicine; pharmacogenomic; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to novel human DNA sequences (designated 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 5563, 52991, 59914, 59921 or 37351) and the proteins encoded by them. The invention may be useful for the development of compounds with a cytostatic, vasotropic, haemostatic, nephrotropic, gastrointestinal-Gen, respiratory-Gen, muscular-Gen, osteopathic, antinflammatory, immunosuppressive, cardiovascular-Gen, hepatotropic, virucide, analgesic, antinanaemic, endocrine-Gen, neuroprotective, nootropic or cardiant activity. In addition, the sequences may be useful for gene therapy. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Silos-Santiago I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Galvin KM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 18; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glucksmann MA, Curtis RAJ, Lora JM,
                               Human 12303 protein cDNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0214176P.
2000US-02590369.
2000US-0223036P.
2001US-0233537P.
2001US-0267076P.
2001US-0275078P.
2001US-0275078P.
2001US-0275078P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00891762.
2001US-00942447.
2001US-0322983P.
2001US-00957683.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-0325854P.
2001US-0336936P.
                                                                                                                                                                                                                                                                                                                                                                       18-MAR-2003; 2003US-00391399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002US-00062937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-00094214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-00245121
2002US-00255532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-00309804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2004-010868/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; ADH51639
                                                                                                                                                                                                                                                                                                         US2003219806-A1
                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                       22-FEB-2000;
07-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorders
                                                                                                                                                                                                                                            88; 12303
```

```
ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00957683.
2001US-00964252.
2001US-00964256.
2001US-00024623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US - 0195734P.
2000US - 019593P.
2000US - 019799P.
2000US - 0235018P.
2000US - 0235018P.
2000US - 0235059P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0256588P.
2000US-0258028P.
2001US-00796720.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADI27935 standard; cDNA; 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0185938P.
2000US-00518866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-MAY-2002; 2002US-00146733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human TWIK-8 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003165891-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-FEB-2000;
03-MAR-2000;
07-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-SEP-2001;
25-SEP-2001;
17-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2000;
21-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-APR-2001;
19-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAY-2004
                                                                                                                                                                                                                                                                                                                                   1107
                                                                                                                                                                                                                                                                                                                                                                                                                       1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADI27935;
                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1287
                                                                                                                                                        666
                                                                                                                                                                                                     901
                                                                    939
                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADI2793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                       ò
                                                                                                               ò
invention may be useful in diagnosing, preventing or treating disorders characterised by aberrant 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38524, 57301, 58324, 55081, 52991, 52991, 53931 or 3351 activity, for example cellular proliferative and/or differentiative disorder, brain disorder, blood vessel disorder, lung disorder, ovarian disorder, prostate disorder, indiapy disorder, lung disorder, ovarian disorder, cesticular disorder, hormonal disorder, disorder associated with bone metabolism, immune disorder, inflammatory disorder, cardiovascular enabolism, immune disorder, inflammatory disorder, cardiovascular metabolism, immune disorder, inflammatory disorder, cardiovascular enabolism immune disorder, inflammatory disorder, neoplastic disorder, endocrine disorder, neurological disorder, or heart disorder, metabolism assays, tissue typing, chromosomal mapping, predictive medicine or pharmacogenomics. They may also be used in screening assays, tissue typing, chromosomal mapping, the cDNA which encodes the human 12303 protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ricalcultatardecectedadecectedatacectetrangearccaecectedecectedece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOGCATGTGCCACCGGGGGTGGTGAGAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 redecaceraceaceas de construcción de recentración de secono de construcción de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCCTTTGGCGACTATGTG 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Agcaacaccac---rcadccrddaaccrdddaacacccrrcrrrrrrcrcaddaacc 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CICAICAAGGAGGIGGCTGAIGCCCTGGGAGGGGGTGCGGACCCAGAAACCAAACTCGACC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACGAGCAGCAGGCTCAGAAAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGTCCGAGAGAAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTGCTCTTTGTCCTTGACTTCCTTCGTGTTCTCCTACATGGAGGTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    819 GCCGCGCGCGCACCCCAGGCACTCCCCCGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               criccricdecriacricaccricacricacrecaccarcacaacracacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCGGCTGGGCTCTTTGTGCGCCGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     reccrecitritatecreaceceaceirecreirerecrararadeaeacreaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCCACCATCGGCAACTGGTTGCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATAGCAGCAACCACCTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AIGCGCAGCACCACACTCCTGCTGCACTGCTGCTTTACTTGGTACTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                68.2%; Score 814.4; DB 12; Length 1408; ilarity 81.5%; Pred. No. 3.48-210; Conservative 0; Mismatches 206; Indels 15;
                                                                                                                                                                                                                                                                                                                                                         Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 973; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
GAGCGTGGCTGTCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ciacicicide de contra c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCCCGGCTCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; TWIK-8; gene; 88; ion channel family; ICF; cancer; leukaemia;
Alzheimer's disease; Parkinson's disease; multiple sclerosis; epilepsy;
hepatic disorder; cardiovascular disorder; cytostatic; neuroprotective;
nootropic; antiparkinsonian; hepatotropic; cardiovascular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGGCGCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                escacacidates de contrator de c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1059 dadciadciaktrac------recerceacedecerratecadedeceraded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
GTGTCCCGCCGAACTCGGCCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                        AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
```

720 878 780 938

```
1167 eccendearrarcecasceasaacerescerrearcarceaceaserececesaracecasase 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1227 GAGCGCGCCTGCCCCCCCCCCCGCGCCCGAGGTCGCCCCCCCAAATCCCCCCAGG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; urological disorder; urinary incontinence; gene therapy; cancer; kidney disorder; overactive; oversensitive bladder; dysfunction; bladder; urethra; overfilow urinary incontinence; stress urinary incontinence; nerebus, system; prostatitis; benign prostatic hyperplasia; nephrotrophic; potassium channel; KCNK4; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             879 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     939 GTGCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCGGCTGGGCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                         TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGTGGAGCAAG
                                                                                                                                                                                                                                  TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGG
                                                                                                                                                                                                                                                                                          TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                759 CTGGAGGCCATCTACTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           819 eccececaccecacacacacacacacaccecentrateaccecacacacare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGITITGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGTGGCTGTCCCTCCTCCGGGGTCGCCGCCGCCGACCCAACCCAAA
                                                                                                           TGGCACGTGCCACCGGAGCTAAGTAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                        CCCGGCGATGGCACCGGGCAGACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                           TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1287 AAGCCCGTGCGCCCCCGGGCCCCCGGGCGTCCCCGAGACAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
64. .1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human potassium channel, KCNK4 DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD58498 standard; DNA; 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-DEC-2003
                                                                                                                                                                         541
                                                                                                                                                                                                                                  669
                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                   639
                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
     579
                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD58498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                              셤
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIHKSKKKKKKKKKKK
                                                        ઠે
                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611,

[1047615, HNWDA-1, TWIK-9, alpha-2delta-4, 54414 and 53763 ion channel
family (ICF) mucleic acids and proteins. The TWIK-6, TWIK-7, IC23927,

TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9, alpha-2delta-4, 54414 and

53763 ICF nucleic acids and proteins may be used for preventing,
clasmosing and treating ICF-related diseases. The sequences may be used
to treat disorders associated with decreased expression by rectifying
mutations or deletions in a patient's genome that affect the activity of
ICF proteins by expressing inactive proteins or to supplement the
clasmost sown production of ICF proteins or to supplement the
cassays to identify modulators of ICF protein expression and activity. The
antigens in the production of antibodies against ICF proteins and in
cassays to identify modulators of ICF protein expression and activity. The
antigens in the production of antibodies against ICF proteins and in
cassays to identify modulators of ICF protein expression and activity. The
antigens in the production of antibodies and antigonies may be used to
capulate ICF protein antibodies, agonists and antagonists may be used to
credulate ICF protein expression and activity. The antibodies may also be
used as diagnose and treat a wide variety of disorders, e.g. cancers
and leuksemia, Alzheimer's disease, Parkinson's disease, multiple
solution and cardiovascular disorders. This
sequence represents conding the human TWIK-8 protein and activity of antibodies and activity of antibodies and activity of antibodies and activity and antiple activity and activity and activity of antiple activity.

Sequence represents conding the human TWIK-8 protein and activity and activity.

Sequence as diagnose and treat a wide variety of disorders, and activity and activity and activity and act
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                              TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9, alpha2delta-4, 54414, or 53763 nucleic acids and proteins, useful for preventing, diagnosing and treating e.g. cancers, Alzheimer's disease and cardiovascular disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 GACCGGCTGGGCTCCTCTCTGCGCCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGCTCAGAAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCTCTTGCTTTACTTGGTGTCTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crearcaagaagargecrearecerregaaggegargegaeceaaceaaceaacreaace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match

68.2%; Score 814.4; DB 12; Length
Best Local Similarity 81.5%; Pred. No. 3.4e-210;
Matches 973; Conservative 0; Mismatches 206; Indels
                                                           Curtis RAJ, Glucksmann MA, Silos-Santiago I;
                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 28; 638pp; English
                                                                                                                 2004-069000/07
     MILLENNIUM
                                                                                                                                                 P-PSDB; ADI27936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
```

g

8

Ś 유 ò

셤

а

g

ઠે

g

ò

셤

8

ઠે

1020

1106

1058

900

```
1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                096
                                                                                                                                                                                                                                                                                                                  858
                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                           918
                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                099
                                                                                                                                                                                                                                                          798
                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                         900
                                                                                                                                                                                                    738
                                                        480
                                                                                   618
                                                                                                                  540
 420
                           558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCGTGGCCTGCCTCGGGCTCCTCGGGGTCGCCGGCCGACCCAACCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCCCGGCTCCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCGCCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1087 AGGCCCCGATCCCCTTCGCCCCCCGAGAGGCTCAGCTGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207 GAGGGGGGGCCGGTGCCCGGGGGGCGCGGCGCCGCCGAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ds; cardiant; gene therapy; cardiac therapeutic preparation; beta-adrenergic receptor antagoniet; endothelial receptor antagonist; calcium channel antagonist; phosphodiesterase inhibitor; angiotensin converting enzyme inhibitor; heart failure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              crosasoschichtertatatataschercatacheraschiedesching
                                                                                                                                                                                                                                                                                                         GIGICCCCCCAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                              TIGITIGGCCTAGCTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                          TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                 TGCCTGCTCTTTGTCCTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGGAGTCGGG
                         recarcititatecectectedeaairccecterirecarcciactedeacacede
                                                        GACCGGCTGGGCTCCTCTCTGCGCGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                       TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCCTTCCAGACCCCGGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene KCNK4 for screening for cardiac therapeutic preparation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard; DNA; 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADP21365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADP21365;
                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                            619
                                                                                                                                                                                                                                                                     739
                                                                                                                                                                                                                                                                                                  661
                                    499
                                                                 421
                                                                                             559
                                                                                                                                                    619
                                                                                                                                                                                 541
          361
                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADP21365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                  ò
                                                        Š
                                                                                       셤
                                                                                                                          ò
                                                                                                                                                 셤
                                                                                                                                                                               ð
                                                                                                                                                                                                                                   ö
          장염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCATCACTACCATGGGCTATGGCAATATAGTCTTACACACAGAGGCGGCGGCGTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present relates to a method for identifying a compound for treating urological disorders e.g., urinary incontinence including overactive/ oversensitive bladder, overflow urinary incontinence, stress urinary incontinence caused by dysfunction of the bladder, urethra or central peripheral nervous system, prostatitis, benign prostatic hyperplasia, cancer of the prostate or kidney disorders. The method is also useful for urological disorder. The invention a subject having a urological disorder. The invention is also used in gene therapy. The present sequence is human potassium channel, KCNK4 DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   142 ATGCGCAGCACGCTCCTGGCCCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGT 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ATGGGCAGCACACACTCTGGCTCTGCTGGCACTGGTGCTGTTTACTTGGTATCTGGG 60
                                                                                                                                                                                                                                                                                                                                                                                                   Identifying a compound for treating urological disorders, for example urinary incontinence by assaying the ability of the compound to modulate the nucleic acid expression or polypeptide activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCGCGCCTTCTTTTTCTCGGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCATCAAGCTCCTGGTTGAAGCCCTTGGGAGGGGGCGCAAACCCAGAAACCAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crcarcaadagaagardacrdaargcccrddaadagagardcgaacccadaaaccaacrcaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15; . Gaps
            /product= "Human potassium channel"
/note= "The CDS is referred to as SEQ ID NO:45 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 81.5%; Pred. No. 4.5e-210;
Matches 973; Conservative 0; Mismatches 206; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2772 BP; 521 A; 911 C; 868 G; 472 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 194-195; Opp; English
                                                                                                                                                           18-JAN-2002; 2002US-0349511P.
28-FEB-2002; 2002US-0360500P.
15-WAR-2002; 2002US-0365041P.
19-APR-2002; 2002US-0374063P.
14-AUG-2002; 2002US-0403468P.
27-SEP-2002; 2002US-0414262P.
                                                                                                                                                                                                                                                                                                                                     Karicheti V;
                                 /note= "The CD
specification"
                                                                                                                                                                                                                                              21-OCT-2002; 2002US-0419986P.
05-NOV-2002; 2002US-0423809P.
26-NOV-2002; 2002US-0429797P.
                                                                                                                                                                                                                                                                                                         (MILL-) MILLENNIUM PHARM INC
                                                                                                                                   2003WO-US001450
                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-598705/56.
P-PSDB; AAE38597.
                                                                                                                                                                                                                                                                                                                                      Silos-Santiago I,
                                                                             WO2003061573-A2
                                                                                                                                                                                                                       14-AUG-2002;
27-SEP-2002;
21-OCT-2002;
05-NOV-2002;
                                                                                                                                    16-JAN-2003;
                                                                                                       31-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
```

8 8

ò

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCCGGCTCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1147 gcccinggarranccagcgagaaccinggccrincancgagagrccrogaracgaracgagac 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                              540
                                                                                                                                                                          678
                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                               738
                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                     798
                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                          858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; G protein-coupled receptor; GPCR; gene; ss; ophthalmic disease; neurological disease; immunological disease; nephritic disease; cancer; hormonal dysfunction; neoplasm; atherosclerosis; diabetes; chemotherapy; anaemia; irradiation; erythodid precursor; erythroid cell; ulcer; organ; pressure ulcer; vascular insufficiency; surgical wound; traumatic wound; pancreas; liver; intestine; kidney; skin; endothelium; skeletal muscle; smooth muscle; cardiac muscle; vascular tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 859 CIGCICGGCCTGGCTTACITCGCCTCAGTGCTCACCACCATCGGGAAACTGGCGGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1087 AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG
499 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                  TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                      TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGGCAAG
                                                                                                                                                                                                                                                  679 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                           601 TTAGAAGCCATCTACTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                     739 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                          799 GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1267 AAGCCCGTGCGGCCCCGGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human G protein-coupled receptor-like (GPCR-like) cDNA #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABX91950 standard; cDNA; 3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-MAY-2003
                                                                                                                                                                          619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                     559
                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106
                                           421
                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABX91950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABX91950
                                                                                                                                                                                                                                                        Б
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                              ò
                                                                                                                                                                   셤
                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                         8
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a method of screening potential therapeutic compounds for cardiac therapeutic preparations by contacting a sample compounds and a call or tissue with a potential therapeutic compound and detecting a level of expression of a gene that codes for a product encoded by a nucleic acid selected from 98 sequences given in the specification and its conservative variants, comparing the level of the expression of the gene to the level of expression of the gene in the absence of the compound, and identifying a potential therapeutic compound affects the level of expression of the gene. The pharmaceutical compound affects the level of expression of the gene. The pharmaceutical composition or active agents (i.e., beta-adrenergic receptor antagonist, endothelial receptor antagonist, calcium channel antagonist, phosphodiesterase inhibitor, or angictensin converting enzyme inhibitor) is useful for treating heart failure in a subject. This sequence represents one of the genes whose expression may be altered by the creen of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGCCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                                                                                                                                                                       Screening potential therapeutic compounds for cardiac therapeutic preparations, useful for treating heart failure in a subject, comprises contacting a sample of cell or tissue with a compound and detecting gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCTGGTGTTCCGGGCCCTTGGAGCACCCCACGAGCAGCAGCAGCAGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Agcaacagcagcacacacacarcagacarcagacagcagcagcarcarrararagagac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2772 BP; 521 A; 911 C; 868 G; 472 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 814.4; DB 12;
Pred. No. 4.5e-210;
0; Mismatches 206; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 10; SEQ ID NO 39; 152pp; English.
                                                                                                                                                                                                                                           (ARTE-) ARTESIAN THERAPEUTICS INC
                                                                                                                                                 2002US-0439379P.
2002US-0437051P.
2002US-0437102P.
                                                                                                          26-NOV-2003; 2003WO-US037927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.2%;
81.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                           WPI; 2004-450738/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 973; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                        contacting a sam
expression level
                                                                                                                                                   27-NOV-2002;
31-DEC-2002;
                                                                                                                                                                                               31-DEC-2002;
                                                                17-JUN-2004
                                                                                                                                                                                                                                                                                      Bednarik DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
```

셤

ઠે

g

ò

ઠે

셤

g

ક

ઠે

요

```
2562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2623 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 2682
                                                                                                                                                                                                                                                                                                                                        2034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2334
1914
                                                                                                                                                                                                                                  1974
                                                                                                                                                                                                                                                                                                                                                                                                                                               2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCACAGTGACAGCGCGAGTGACCCCAGCGAACTGGGCCCCAGCGCCCCCGCCGAGAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2883 ekedecederrecceerreccedecedecedeseadarecedecedecedeseakrecedeade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCGTGGCTGTGCCTTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1275 GCCGGCGGACCCCAGGCAGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2335 crecredecerederraciredecercadescenceacearedegaacredegaara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTCCCGCCGAACTCGGCCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGGTCCTCAGACACGCAGAGT
                                                                                                                 2035 gaccederedecrecereceredecearedearedereacarreaadecearerreaade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGCATGTGCCACCGGGGCTGGTGAGAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2095 reschesteckésekéskérhárhákákarsérésésekésekértrirésrésréskésés
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCTGCTCTTTGTCCTCGTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721 TIGITIGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCCAGCA
                                                                                AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTCTCGGGGACC
                                                                                                                                                                                    ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                        TGTATCTTCTATGCACTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                           GACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2743
                                                                                                                                         1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS08652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS08652;
                                                                                                                                                                                                                                             1915
                                                                                                                                                                                                                                                                                                                                                1975
                                                                                      241
                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AASO8652
ID AASC
XX
AC AASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                   8
                                                                                                                                 В
                                                                                                                                                                                 8
                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to human G protein-coupled receptor-like (GPCR-like) proteins and the polynucleotides encoding them. The isolated sequences are used for the treatment of diseases of ophthamis, neurological, immunological, or nephritic systems. They may also be used to treat hormonal dysfunction, cancer and other neoplasia, at the resolate soils, diabetes, in treating various ansemias or for use in a the resolation with irradiation/chemocherapy to stimulate the production of erythroid precursors and/or erythroid cells. The sequences may be used to promote better or faster closure of non-healing wounds, including promote better or faster closure of non-healing wounds, including surgical and traumatic wounds and in generation or regeneration of other tissues. G. organs (e.g. pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skelteal, or cardiac) and vascular tissue or for promoting the growth of calls comprising such tissues. Sequences or human GPCR-like polynucleotides of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          decetrofretecosocerdos de adecentos de asecentos de estados de entra de estados de entra e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1738 GAGGICCGAGAGARGITCCIGAGGCCCCAICCGIGIGIGAGCGACCAGGAGCIGGGCCIC 1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACGAGCAGCAGGCTCAGAAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATGCGCAGCACCACACTCCTGGCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isolated polynucleotide for treating, e.g. ophthalmic diseases, com
specified nucleotide sequences, or their translated protein coding
portion, mature protein coding portion, extracellular portion, or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68.0%; Score 811.4; DB 8; Length 3945; 81.4%; Pred. No. 3.4e-209; ive 0; Mismatches 206; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3945 BP; 606 A; 1344 C; 1238 G; 757 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 100-102; 158pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ú
                                                                                                                                                                                                                                               25-APR-2000; 2000US-00552317.
20-UUN-2000; 2000US-0059042.
19-UUL-2000; 2000US-00620312.
31-AUG-2000; 2000US-00653450.
04-DEC-2000; 2000US-00729739.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 81.4%;
Matches 970; Conservative
                                                                                                                                                                         21-DEC-2000; 2000US-00747835
                                                                                                                                                                                                                            2000US-004B8725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tang YT,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRMANAC R T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-174164/17.
                                                                                                                                                                                                                                                                                                                                                                                                         >
                                                                                                                                                                                                                                                                                                                                                                                                         YAMAZAKI V
TANG Y T.
LIU C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZHANG J.
REN F.
ASUNDI V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZHOU P.
WANG D.
                                                                      US2002146692-A1
                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Asundi V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamazaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (WANG/)
(ZHAN/)
(RENF/)
(ASUN/)
(DRMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                 (TANG/)
(LIUC/)
(ZHOU/)
                                                                                                                                                                                                                                                                                                                                                                                                            (YAMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   domain.
```

g

8

qq

ò

g ð

ò

```
1 ATGCGCAGCACCACACTCCTGGCTCTGCTGCTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                      吕
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                      ò
                                                                                                            ò
                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequence encodes a human G-protein coupled receptor (GPCR)-like protein. The GPCR-like polypeptides and polymucleotides are useful for the treatment of diseases of opthalmic, neurological (e.g Alzheimer's disease and Parkinson's disease, immunological (e.g HIV infection and disease and Parkinson's disease, immunological (e.g HIV infection and candidiasis), autoimmune disorders (e.g multiple sclerosis, systemic lupus erythematosus and aplastic aremia), inflammatory disorders (e.g. thrombocytopaenia and aplastic anaemia), inflammatory disorders (e.g. septic shock and systemic inflammatory response syndrome, SIRS) and nephritic systems. They may also be used to treat hormonal dysfunction, cancer, atherosclerosis, wounds, tissue regeneration, haemophilia, leukaemias, reperfusion injury, psoriasis and diabetes. Numerous examples of each type of disorder are given in the specification. Anti-GPCR-like protein antibodies are useful for detecting or quantitating the polypeptide.
                                                              Human; G-protein coupled receptor like protein; GPCR; immunogen; ophthalmic disease; neurological disease; Alzheimer's disease; parkinson's disease; munuological disorder; HIV, candidassis; human immunodefical disorder; HIV, candidassis; systemic lupus erythematosus; rheumatoid arthritis; platelet disorder; systemic inflammatory response syntome; INRS; hormonal dysfunction; cancer; atherosolerosis; wound; tissue regeneration; haemophilia; leukaemia; reperfusion injury; psoriasis; diabetes; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New G-protein-coupled receptor-like polypeptides and polymucleotides, useful for treating diseases of ophthalmic, neurological, immunological and nephritic systems and hormonal dysfunction, cancer, atherosclerosis and diabetes.
                                        #8.
                                        encoding G-protein coupled receptor like protein, GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ren
                                                                                                                                                                                                                                                                                              /note= "This sequence is specifically claimed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3996 BP; 611 A; 1366 C; 1249 G; 770 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.0%; Score 811.4; DB 5;
81.4%; Pred. No. 3.4e-209;
iive 0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>،</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 197-202; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhou
                                                                                                                                                                                                                                     Location/Qualifiers
52. .3996
                                                                                                                                                                                                                                                                                "GPCR #8"
                                                                                                                                                                                                                                                                                                                                                                                                        2000US-00488725.
2000US-00552317.
2000US-00598042.
2000US-00620312.
2000US-00653450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       markers and as a food
                                                                                                                                                                                                                                                                                                                                                                               2000WO-US034983
                                                                                                                                                                                                                                                                  /*tag= a
/product=
              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , Tang YT,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-442255/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAU04571
                                                                                                                                                                                                                                                                                                                         WO200153454-A2
                                                                                                                                                                                                                                                                                                                                                                                                        21-JAN-2000;
25-APR-2000;
20-JUN-2000;
19-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                               22-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-AUG-2000;
                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yamazaki V,
              17-DEC-2001
                                                                                                                                                                                                                                                                                                                                                     26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Asundi V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       weight
                                          Human
```

Gaps

15;

Indels

Query Match
Best Local Similarity 81.4%;
Matches 970; Conservative

Length 3996;

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2733
   1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2613
                                                                                                                                                                                                                                                                                                              1789 GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                       2326 GCCGGCGCGCACCCCAGGACAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2506 GGCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGCCCGCCGCCGCCGCCGCCGGAAG
GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCTCAGAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1849 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTTCTCGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCGGCTGGTCCTCTTGCGCCGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2146 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2206 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661 CCCGGCGATGGCACCCGGGCAGACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGGTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGGCGCCCCCGCCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------rigicarcaccacicates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2674 decenciantrateccadecada a confederate de confederación de confederaci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081 GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA
                                                                                                                                                                                                                                                                                                                                                                                     TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2566 GAGCAGCCACTGC
                                                                                                                                                          1729 (
                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
```

2734 GAGGGGGGTGCCCGCTGCCCGCGCGCGCGCGCGCCGCCCCAATCCCCCCAGG 2793 g

d

ò

Search completed: February 2, 2005, 17:34:59 Job time : 657 secs

₹

```
GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGAGCAGAAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 eccenegretrecegeseceradadeaececeaegaecaecaecaeceaegaecreege 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 gaggreccagagagerrecreageseccarecererereageseccaesagesecrec 180
                                                                                                                                                  3, Appli
66, Appl
13872, A
14, Appl
                                                                                                                                                                                                                       Appli
Appli
                                                                                                                                                                                                                                                         Appl
Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCGCAGCACCACACTCCTGCTCCTGCTGCTGCTGCTTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Arececaecaccacecrecrescerecrescerescererrecrivacrissister
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 AGCAACAGCAGCCAC---TCAGCCTGGGACCTGGGCAGCGCCCTTCTTTTCTCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGCGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                       Sequence 45,
Sequence 50,
                                                 Sequence
Sequence
Sequence
                                                                                                 Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                       Sequence
Sequence
Sequence
Sequence
                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 814.4; DB 4;
Pred. No. 7.9e-219;
0; Mismatches 206;
                            US-09-362-842-7
US-09-561-763-12
US-09-611-367B-12
US-09-431-367B-10
US-09-362-842-11
US-09-362-842-11
US-09-362-842-3
US-09-362-842-3
US-09-370-767-13872
US-09-232-463-14
US-08-333-6438-15
                                                                                                                                                                                                                                                                       US-09-616-289-45
US-09-616-289-50
                                                                                                                                                                                                                                                                                                                                                                                                                      SQUENCE 1. Application US/09432470
Fatent No. 6426197
GENERAL INFORMATION:
APPLICANT: David Malcolm Duckworth
APPLICANT: Conrad Gerald Chapman
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFRENCE: GP-30190
CURRENT APPLICATION NUMBER: US/09/432,470
FARLIER APPLICATION NUMBER: UK 9923668.9
EARLIER APPLICATION NUMBER: UK 9924048.4
EARLIER FILING DATE: 1999-10-07
EARLIER FILING DATE: 1999-10-07
SARLIER FILING DATE: 1998-11-03
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FRAELSE FALLOR OF WINDOWS VERSION 3.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative
2441
11188
3462
1203
11203
11506
11506
11506
1027
1027
1033
3033
3033
3033
1011
1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
CORGANISM: HOMO SAPIENS
US-09-432-470-1
 LENGTH: 1182
                                                                                                                                                                                                                                                                                                                                                                                                                JS-09-432-470-1
                                                46.8
46.8
46.8
46.2
43.2
                                                                                                                                                                  41.8
                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 195, App
Sequence 432, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Appl
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Appli
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 13, Appl
Sequence 1, Appli
                                                                                                                 2005, 17:02:40 ; Search time 123 Seconds (without alignments) 6899.853 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                       1 atgcgcagcaccacactcct......gagacaaggccgtgccggtg 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence (Sequence (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                             1649014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued Patents_NA:*

. /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
.: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
.: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
.: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
.: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
.: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-620-312D-195
US-09-236-080-5
US-09-236-080-1
US-09-236-080-1
US-09-236-080-1
US-09-316-643A-82
US-09-431-367B-6
US-09-431-367B-4
US-09-431-367B-3
US-09-561-763-3
US-09-561-763-3
US-09-561-763-3
US-09-431-367B-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-36-080-3
US-09-431-367B-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-620-312D-195
                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-362-842-13
US-09-362-842-1
                                                                                                                                                                                                                                                                                                           824507 segs, 355394441 residues
                                                                                                                                                                                   US-09-655-272-1_COPY_284_1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                 nucleic search, using sw model
                                                                                                                                                                                                                                                       IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                              seg length: 0
seg length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220.8
124.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124.4
117.2
117.2
117.2
117.2
102.8
102.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          102.6
102.6
75.2
75.2
75.2
74.2
58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               249.8
229.2
220.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   124.4
124.4
                                                                                                                                                                                                       score:
                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                              0B
0B
                                                                                 nucleic
                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                     Title:
Perfect
                                                                                                                                                                                                                                                                                                                                                                              Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
No.
```

ď

9 9 240 240 300 360

357

```
; ORGANISM: HC
US-09-432-470-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                  н
                                                                                                                                                                                                                    37
                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGTGGCTGTCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aggecegaciceceracececagagaagaragacrecagececegecerea 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCACAGTGACAGCGCGAGTGACCCCAGCGAACTGGGCCCCAGCGCCCCGCCGCCAGAGAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          897
                                                                                                                                                                                                                                                                           TIAGAAGCCAICIACITIGITAIAGIGACICICACCACIGIAGGCITIGGCGAITAIGIA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
420
                              417
                                                                 480
                                                                                                  477
                                                                                                                                    540
                                                                                                                                                                       537
                                                                                                                                                                                                       TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGGCTGGAGCAAG 600
                                                                                                                                                                                                                                          597
                                                                                                                                                                                                                                                                                                             657
                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                    GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                             GTGTCCCGCCGAACTCGGCCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĠAĠĊAĠĊĊAĊĦĠĊ
                                                                                                                                                                                                                                                                                                                                              CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTGGTTCTGGATC
                                                                                                GACCGGCTGGGCTCCTGCCTGCGTCATGGCTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                    TGGCATGTGCCACCGGGGCTGGTGAAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                     rescalerational de la comparación de la comparta del comparta del comparta de la comparta del comparta del comparta de la comparta del comparta del comparta de la comparta de la comparta del comparta del
                                                                                                                                                                                                                           TGTAICTICTATGCACTGGTGGGGATCCCCACTGTTCGGGATGCTGCCGGGAGTCGGG
                   gacceecrecercrerececeeecarceeccacecareeaaccarcricaaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/09432470; Sequence 3, Application US/09432470; Patent No. 6426197; GENERAL INFORMATION:
APPLICANT: David Malcolm Duckworth; APPLICANT: Conrad Gerald Chapman; TITLE OF INVENTION: NOVEL COMPOUNDS; FILE REFERENCE: GP-30190; CURRENT APPLICATION NUMBER: US/09/432,470; CURRENT FILING DATE: 1999-11-03; EARLIER APPLICATION NUMBER: UK 9923669.9; EARLIER FILING DATE: 1999-10-07; EARLIER FILING DATE: 1998-11-03; EARLIER FILING DATE: 1998-11-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
US-09-432-470-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                 538
                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                        658
         361
                                       358
                                                                          421
                                                                                                           418
                                                                                                                                             481
                                                                                                                                                                            478
                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          상
음
상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                    B 5
                                                                                                                                                                                                                                                                                                                                          중 월
                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                        g
                                                                        장음
                                                                                                                                           ò
                                                                                                                                                                   8 S
                                  셤
          ठ
```

```
840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    753
                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                          453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     693
                                                                                                                                                                                    GCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACGAGCAGCAGGCTCAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                            393
                                                                                                                                                                                                                                                                                                      TTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                           333
                                                                                                                                         9
                                                                                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCACAGTGACAGCGCGAGTGACCCCAGCGCCCCAGCGCCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16CCTGCTCTTTGTCCTCACCTCCTACCTTCTCTTCTCCTACATGAGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGTCCCGCCGCACTCGGGCAAAAAAGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                Tegcanereccacceeecreareagaaercrerecaerecrerrecreereareceec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAGAAGCCATCTACTTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TIGITIGGCCIAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                  ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATCTTCTATGCACTGGTGGGATCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                               gaccegoriogramicirorgeogeogramogeocacacarogaageaarcirorreaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGGCGATGCCACGCGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                      CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                   157 GAGGTCCGAGAGAGATTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                     ATGCGCAGCACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                      TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                  Gaps
                                                                                                                 15;
                                                                                          Length
                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                      AATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTT
                                                                                          Score 814.4; DB 4;
Pred. No. 8e-219;
0; Mismatches 206;
          3.0
, NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSEQ for Windows Version
; SEQ ID NO 3
; LENGTH: 1218
; TYPE: DNA
ORGANISM: HOMO SAPIENS
                                                                                           Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

121 CATGGCCGACAGTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180	1789 GAGTICCGAGAGTITCTTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 1848 181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCAGAAACCAGCTGGACC 240	1849 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGGGGGG	1909 AGCAACAGCACTCAGCCTGGGACCTGGGCAGCGCCTTCTTTTCTCAGGGACC 1965 301 ATCATCACATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGGTTT 360		201 IGENTITITITITICALISAGES CONTROLLES CONTR	421 GACCGGCTGGGCTCCTCTCGCGCGGGCCATCGGCCACATCGAAGCAATCTTCTTGAAG 480	481 TGGCATGTGCCACCGGGGCTGGAGAAGTCTGTCCGCAGTGCTCTTTCCTGCTGATCGGC 540	541 IGCCIGCICTITGICCTCACTCCTACGIGITCTCCTACATGGAGAGCTGGAGCAAG 600 	601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGGGATTATGTA 660 2266 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGGTTTGGCGACTATGTG 2325	661 CCCGGGGATGGCACCGGGCAGAACTCTCCAGCCTAGCGGCGGTGGTGTTCTGGATC 720	721 TIGITIGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA 780	781 GTGTCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840	841 GGCACACTGACAGCGCGGAGTGACCCAGCGACTGGGCCCCGCCGCCGCCGAGAAG 900	901 GAGGAACCACTCCTGCCCTCTTTGCCGGCACCGCCTGCTGTTGAGCCAGCC	961 AGGCCCGGCTCCCTGCACCCGCAGAGAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020	1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080	1081 GAGCGTGGTGTGCCCTGCCTCGGGCTCCTCGGGGTCGCCGCC	1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCG 1191
8	8 &	음 상	8 &	. පි	중 옵	& 43	<i>∂</i> ; 8	∂. A	& 8	& 43	io d	<i>&</i> 8	& B	& A	& a	λό da	ò 8	<u>ද</u>
	Qy 961 AGGCCCGGCTCCCCTGCACGCAGAGATTGAGACTCCGTCCCGCCCACGGCCTCA 1020 Db 982 AGGCCCCGATCCCCTTCGCCCCCCGGAAGGCTTCAGCCGCCTACCCGCCCACGGCCTCG 1041	Qy 1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080 Db 1042 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1101	Qy 1081 GAGGGTGGCTGTGCCTGCGTCCTCGGGGTCGCCGACCCAACCCATCCAAA 1140 Db 1102 GAGGGGGCTGCCGGCTGCCCGCGGCCGCCGCCCCAATCCCCCCAGG 1161	AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGTG 119	7911	KESULY 3 VESULY 509-63-312D-195 ; Sequence 195, Application US/09620312D ; Patent No. 659962 ; Patent Information	Jackstan Introduction		. Xue, . Xue, . Yang, . Wang,	APPLICANT: Zhou, Ping APPLICANT: Wan, Yunqing APPLICANT: Wang, Dunrul APPLICANT: Wang, Zhiwei	; AFFLICANT: DOIN TILINGUAST. ; TITLE OF INVENTION: Polypeptides ; TITLE OF INVENTION: Polypeptides	REFERENCE: 784CI NT APPLICATION N NT FILING DATE: APPLICATION NUV	; PRIOR FILING DATE: 2000-04-25 ; PRIOR APPLICATION NUMBER: 09/488,725 ; RIOR FILING DATE: 2000-01-21 ; NUMBER OF SEQ ID NOS: 1105	; SOFIWARE: pt_FL_genes Version 1.0 ; SENGTH: 3996 ; TYPE: DNA	ORGANISM: Homo sapiens NAME/KEY: CDS LOCATION: (52)(3996)	OS-09-020-112D-159 Query Match Best Local Similarity 81.4%; PredG. No. 9.88-218; Length 3996; Matches 970: Conservative 0: Mismatches 206; Indels 15: Gaps 2:	ATGCGGAGCACCACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG	Oy 61 GCTCTAGTGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAATGGAT 120

```
1382 Arccircirdiédectrocchactirecactedecteleararearcédagariedecrace 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     787 CTCATCCAGCAAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGCTCC 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC 300
1202 idcairgigiridigacgarcccigcigicarcirraagiacarcaaggcciggacgcc 1261
                                                                                                                                                                                                                                                    trocagrecatriacriticiosiscicacicios de assessi de contradorda interior de 1321
                                                                                                                                                                                                                                                                                                                            1322 gcadadadadactradartahrankadadadadahanadaccchadididdirindd 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1442 GTTCTGTCCAAAAAGACAAAAGAAGGTGAAATCAAGGCCATGCGGCAGAGTGG 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                727 ATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGACTCCACCGAGCTGGAGGAA 786
                                                                                                                                                                                                                                                                                                                                                                   ATCTTGTTTTGGCCTAGCTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGA 777
                                                            TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607 Ardaaarggaagacagrictccacgaritriccrggiggicciccicrarccidarcarcga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AIGCGCAGCACCACACTCCTGGCTCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                              1142 AAGCAAGTGAGTCAGACCAAGATCCGGGTCATCTCAACCATCCTGTTCATCTTGGCCGGC
                                                                                                                                       TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGG
                                                                                                                                                                                                                 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                            661 CCCGGCGATGGCACCGGGCAGAACTCTCCAG---CCTACCAGCCGCTGGTGTTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 229.2; DB 3;
Pred. No. 2.2e-54;
0; Mismatches 373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5. Application US/09236080
; Sequence 5. Application US/09236080
; Patent No. 6242217
; GENERAL INFORMATION:
    APPLICANT: Helen Meadows
; APPLICANT: Conrad Chapman
    TITLE OF INVENTION: No. 6242217e1 Compounds
; FILE REPERENCE: GP30031
; CURRENT APPLICATION NUMBER: US/09/236,080
; CURRENT FILING DATE: 1999-01-25
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1502 AAGGCCAATGTCACGGC 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                838 ACCGGCACAGTGACAGC 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 55.3%;
Matches 472; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-236-080-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-236-080-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                             718
                                                                                                                                                                                                                                                                                                                                                                                                                                                       178
                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                              1262
                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                    d
                                                                                                                                             ð
                                                                                                                                                                           g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       962 GICATTACGACCATAGGGTATGGGAATATTGCTCCGAGCACTGAAGGAGGAGCAAAATCTTT 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1022 reratrirarareccarcriredaatrecacicriregrricriarregeregaarrega 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGCTCAGAAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 ATCATCACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGIAICITCIAIGCACTGGIGGGAICCCCACTGIICGGGAIGCTGCTGGCGGAGICGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   671 Archaerecaaeacecrecriccarcrirerecricicerecricicaricricricarcrisec 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rrearccaecarecrerrearecreacaarecededercaercearadedaaaacrerrec 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aacaacagccac-----reggaccrccaccacrccrrrrrrrrrcrrrgcrgaacr 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 ATGCGCAGCACCACACTCCTGGCTCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; Length 2730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6783969el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SOFTWARE: PL_Genes Version 2.0
LENGTH: 2730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 249.8; DB 4;
Pred. No. 4.2e-60;
0; Mismatches 352;
                                  RESULT 4
US-09-799-451-432
Sequence 432, Application US/09799451
Patent No. 6783969
                                                                                                                                                                                                                           Zhang, Jie
Xue, Aldong J.
Zhao, Qing A.
Wang, Jian-Rui
Ma, Yunqing
Yamazaki, Victoria
Chen, Rui-hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 20.9%;
Best Local Similarity 57.5%;
Matches 493; Conservative 0
                                                                                                                         Tang, Y. Tom
Zhou, Ping
Goodrich, Ryle
Asundi, Vinod
Ren, Feiyan
                                                                                                                                                                                                                                                                                                                                                                                                     ang, Yonghong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: CDS
; LOCATION: (473)..(2086)
US-09-799-451-432
                                                                                                                                                                                                                                                                                                                                                                 Zhiwei
                                                                                                                                                                                                                                                                                                                                                                                     Dunrui
                                                                                                                                                                                                                                                                                                                                                                                                                                           Ghosh, Reena
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                           Wehrman,
                                                                                                                                                                                                                                                                                                                                                                                     Wang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

180

9

454

394

```
397 GAAGTICCTICTITICTITICTICGCACTGTTATTACAACCATAGGATITIGGAAAACATCTCAC 456
                                                                                                                   286 Grercharredacegageredarchaerechredecharrachechecharanaereche 345
                                                                                                                                                                                                                                                                                346 GGATTATACCGTTAGGAAACACCCTCCAATCAATCAGTCAC-----TGGGATTTGG 396
                                                                                                                                                                                                                                                                                                                                                               275 GCAGCGCCTTCTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         697 rcaaacacaracaagecresagereceresacecearrrarrreresarareacreraa 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   755 CCACCATCGGCAACTGGTTGCGAGCAGTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCTGCC 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                877 GCATGATTGGAGATTGGCTCCGAGTGATATCTAAAAAGACAAAAGAAGAGGTGGGAGAGT 936
                                                                                                                                                                                                      215 GCGCAAACCCAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            335 TACACACACAGATGCCGGGCGTCTCTTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457 CACGCACAGAAGGCGGCAAAATATTCTGTATCATCTATGCCTTACTGGGAATTCCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395 TCGGGATGCTGCTGCCGGGAGTCGGGGACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      517 irgirrircicriggicigagirgagircagciaggcaccararirgaaaaggaarrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 455 GCCACATCGAAGCAATCTTCTTGAAGTGGCATGTGCCCACCGGGGCTGGTGAGAAGTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        577 CCAAAGTGGAAGATACGTTTATTAAGTGGAATGTTAGTCAGACCAAGATTCGCATCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCCTACATGGAGGGGGGGGGGGTTAGAAGCCATCTACTTGTTATAGTGACTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACTGTAGGCTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTCTCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          757 CAACTATTGGATTTGGTGACTACGTTGCAGGTGGATCCGATATTGAATATCTGGACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         695 ACCAGCCGCTGGTGTGGTTCTGGATCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      515 CCGCAGTGCTCTTCCTGCTGATCGGCTGCTCTTTTGTCCTCACTCCTACCTTCGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Miller, Andrew P.
APPLICANT: Curran, Mark Edward
APPLICANT: Unran, Mark Edward
APPLICANT: Unran, Mark Edward
APPLICANT: With English and Charles
APPLICANT: Wang, Jian-Wang
TITLE OF INVENTION: No. 6399761el Human Potassium Channels
FILE REFERENCE: SOG-15P
CURRENT APPLICATION NUMBER: US/09/336,643A
CURRENT APPLICATION NUMBER: 60/106,687
FRIOR APPLICATION NUMBER: 60/106,687
FRIOR PELING DATE: 1998-08-07
FRIOR PELING DATE: 1999-01-19
FRIOR PILING DATE: 1999-01-19
FRIOR FILING DATE: 1999-01-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              815 TAACGCACAGGCTGCTAGCTGGACCGGCACAGTGACAGC 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGAGCACACGCTGCTGAGTGGACAGCCAACGTCACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 82, Application US/09336643A Patent No. 6399761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-09-336-643A-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       575
                                             155
                                                                                                                   a
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1258 GCAGGTGGATCAGACATTGAATATCTGGACTTCTACAAGCCTGTGGTGTGTTGTTGTGGATC 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1318 CTCGTTGGGCTGCCTACTTTGCAGCTGTTCTGAGCATGATTGGGGACTGGCTACGGGTG 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1378 AřCTČTAAGAAGÁCGAAGGAÁGÁGGTGGGAGAGTTCÁGAGCGCÁTGCCGCTGAGTGGÁCA 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .018 GATCAGCTAGGAACTATTTTGGAAAAGGAÁTTGCCAAAGTGGÁAGACACATTTATTAAG 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rerererererecerecereceres de la respecie de la companidad del companidad de la companidad de la companidad de la companidad d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1198 CTGGACGCTATCTATTTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTACGTG 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                           TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285
        897
                                                                                                                                        TGGTTGTCCTCTATCTGATCATCGCACCCTGTTCAAAGCATTGGAGCAGCCTCATG 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 AGCAGCAGGCTCAGAAGAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCT 154
                                                                                                                                                                                                                                                                                        847 AATCAAGTTAGTCAC-----TGGGACCTCGGAAGCTCTTTCTTTGCTGGTACT
                                                                                                                                                                                                                                                                                                                                                                                                    GACCGGCTGGGCTCCTCTCTGCGCCCGGGCATCGCCACATCGAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           regaaretragreagacgaagarregrarearerecaecarearerrearerrege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGTTTGGCCTAGTTCGCCTCAGTGCTCACCACCATCGGCAACTGGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781 GTGTCCCGCCGAAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               226 AGATTTCACAGAGGACCACCATTGTGATCCAGAAGCAAACATTCATATCCCAACATTCCT
                                                                                  301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTGCTGCTTTACTTGGTATCTGGGGCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18.5%; Score 220.8; DB 3; Length 55.4%; Pred. No. 4e-52; ive 0; Mismatches 357; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/09236080
| Patent No. 6242217
| GENERAL INFORMATION:
| APPLICANT: Helen Meadows
| APPLICANT: Conrad Chapman
| TITLE OF INVENTION: NO. 6242217el Compounds
| FILE REFERENCE: GP30031
| CURRENT APPLICATION NUMBER: US/09/236,080
| CURRENT FILING DATE: 1999-01-25
| NUMBER OF SEQ ID NOS: 6
| SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1438 GCCAATGTCACGGC 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 18.5
Best Local Similarity 55.4
Matches 454; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841 GGCACAGTGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
CRGANISM: Homo sapiens
US-09-236-080-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
US-09-236-080-1
                                                                                                                                                                                                                                                                                                                     928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 1
                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                  ઠે
                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

816

754

694

```
APPLICANT: CLETS, ROLY A.J. et al.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074022
CURRENT APPLICATION NUMBER: US/09/561,763
CURRENT APPLICATION NUMBER: 09/431,367
PRIOR FILING DATE: 01-11-1999
PRIOR FILING DATE: 01-03-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PALENTIN VENT OF 12
SOFTWARE: PALENTIN VET: 2.0
SEQ ID NO 6
LENGTH: 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 54.5%;
Matches 301; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             763 GGCAACTGGTTG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCCCAGCTG 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1) .. (996)
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; NAME/KEY: CDS
; LOCATION: (1)
US-09-561-763-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
US-09-431-367B-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  798 caactatredartredacetacetrecaderdearcegararreaarateregacredt 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gcargatricia de la comparta del comparta del comparta de la comparta del comparta del comparta de la comparta del comparta del comparta de la comparta del com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         trogerrircicerrigicada de producio de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra dela contra de la contra del la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             618 ccahagigahaganacgitratrahagigahigiragicagaccangaricgcarcarci 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTCCTACATGGAGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCA 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGCCGCTGGTGGTTCTGGATCTTGGCCTAGCCTACTTCGCCTCAGTGCTCA 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACCATCGGCAACTGGTTGCGAGCAGTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCC 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOGGGATGCTGCTGGCGGGAGTCGGGACCGGCTGGGCTCCTCTCTGCGCCCGGGGGCATCG 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         caacaarcararraaacrarragecrererererirrigiesererecerererar 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  738 icaaacacaradaaggcrigaagrgcccigaacgccarrriarririgiggriarcacrciaa 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACTGTAGGCTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTCTCCAGCCT 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGATTTCACAGAGGÁCCÁCCÁTTGTGATCCAGAAGCÁAACAÍTCAÍATCCCÁACÁÍTÍCÍT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Grercaatresacseascresatsaacrestreascaaarastescaaraaarseas 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGATTATACCGTTAGGAACACCTCCAATCAATCAGTCAC-----TGGGATTTGG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCGCCTTCTTTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        438 gaágrucérirerirgergegekergirárrárakoakégirággaáratorak 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACACACAGATGCCGGGCGTCTCTTTTGTATCTTCTATGCACTGGGGGATCCCACTGT 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCAAACCCAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGG 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            498 cacecacacacacacacacacataricricitaricarcitariecritacriedaarirecerier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cogcadigerericergergaregeergeergererrererererereracteera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       207 restrerecterarersarearesas ecacestarea as en restresas es en restresas es es
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95 AGCAGCAGGCTCAGAAAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGTGAGCCAGAAGAGCCTGGAGGATTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCACATCGAAGCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGTGCTGCTTTACTTGGTATCTGGGGCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACG
                                                                                                                                                                                                                                                                                                                                                                                                  .
.
                                                                                                                                                                                                                                                                                                                        Length 3300;
                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches 357; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rcagaccacacciccigagregacacccaaccicacacc 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAACGGCACAGGCTGCTAGCTGGACCGGCACAGTGACAGC
                                                                                                                                                                                                                                                                                                                        DB 3;
                                                                                                                                                                                                                                                                                                                        Score 220.8; DB 3
Pred. No. 6.4e-52;
                                                                                                                                                                                                                                                                                                                        18.5%;
                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 55.4'
Matches 454; Conservative
                                                                                                                                                                ; NAME/KEY: CDS
; LOCATION: (50)...(1285)
US-09-336-643A-82
                                                     TYPE: DNA
ORGANISM: H. sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275
                LENGTH:
                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              730 Ardsigirecersisistereritisissas arastas arastas aratas aratas aratas aratas aratas aratas aratas aratas ara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              406 crescesearcesearcescrescrescrescrescrescescescescrescrassa 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     670 Trociciacriacerearreaarcecereceasaseraceaeraceaeracaracadaaac 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            762
                                                                                                                                                                                                                                                         285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGAT 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            526 Trecrecreareagerecerecretrareacerecrecreceracerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITGGCGATTATGTACCCGGCGATGGCACCGGGCAGA---ACTCTCCAGCCTACCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sso gecéricerceggécnéchéchérhechechgeneceacechecherrichechéard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703 CIGGIGIGGITCIGGAICTIGITIGGCCIAGCCIACTICGCCICAGIGCICACCAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 6, Application US/09431367B
; Patent No. 6670149
; RENERAL INPORMATION:
; APPLICANT: Curtis, Rory A.J.
; IITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            610 GAGGGTGGGGGCTACAGAGGGCTTCTACTTCGCCTTCATCACCCTCAGCACGTGGGC
                                                                                                                                                                                                                                                  226 GAAACCAGGIGGACCAATAGCAGCAACCACTCAICAGCIIGGAACCIGGGCAGCGCCIIIC
                                                                                                                                                                                                                                                                                                                                                                    262 gajacciaecrocronacacacacacacacarecececroses de actorocorona de construciones de constru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           346 GCCGGCGTCTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              466 GCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTC
                                                                                                                               Gaps
                                                                                                                         15;
Length
Score 124.4; DB 4; Length
Pred. No. 4.3e-25;
0; Mismatches 236; Indels
```

US-09-561-763-6; Sequence 6, Application US/09561763; Patent No. 6664373

```
US-09-431-367B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  646
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGGCTGGAGCTACACAGAGGGCTTCTACTTCGCCTTCATCACCCTCAGCACCGTGGGC 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rrcegecgacracergarregaargaacecereceagagegraeceaergegraegaae 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITITCICGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGAT 345
                                                                                                                                                                                                                                                                                                                                                                                                     GCCGGGCGTCTCTTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTG 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGCGGGAGTCGGGGACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACATCGAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITGGCGATTATGTACCCGGCGATGGCACCGGGCAGA---ACTCTCCAGCCTACCAGCCG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGTGTGGGTTCTGGATCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATC 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Curtis, Rory A.J. et al.
TILLE OF INVENTION: NOYEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP2
CURRENT APPLICATION NUMBER: US/09/561,763
CURRENT APPLICATION NUMBER: US/09/561,763
PRIOR APPLICATION NUMBER: 09/431,367
PRIOR APPLICATION NUMBER: 09/431,367
PRIOR PILING DATE: 01-11-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   226 GAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTC
                                                                                                                                                                                                                                                                                                                                                  GGAGCCAGCTCCTCAGCAACACCACCAGCATGGGGCGCTGGGAGCTCGTGGGCTCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466 GCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCTGCTGATCGGCTGCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGC
                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                   Score 124.4; DB 4; Length 996;
Pred. No. 4.3e-25;
0; Mismatches 236; Indels 15
FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B
CURRENT FILING DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR FILING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/09561763
Patent No. 6664373
                                                                                                                                                                                                                                                   10.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            763 GGCAACTGGTTG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTCCCAGCTG 801
                                                                                                                                                                                                                                                                     Best Local Similarity 54.5
Matches 301; Conservative
                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                       ; LOCATION: (1)..(996)
US-09-431-367B-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                             LENGTH: 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -09-561-763-4
                                                                                                                                                                                                                                                                                                                                                                                                                322
                                                                                                                                                                                                                                                                                                                                                                                                                                               346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               382
                                                                                                                                                                                                                                                                                                                                                                                 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          790
                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      286 TTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGAT 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          406 CTGGCGGGAGTCGGGCTGGGCTCCTCTGCGCCCGGGCCATCGGAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          563 cr------caaccaacricescarcrearecaecaecaecaecaecaecaecaecaecaece 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITGGCGATTATGTACCCGGCGATGGCACCGGGCAGA---ACTCTCCAGCCTACCAGCCG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                443 rircrirricrioric de carcarcación reservados de contra de contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    611 GCCCTCCTCTCGGGCCTCCTGCTCTTCCTGCTGCTGCCACCGCTGCTCTTCTCCCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                383 GGAGCCAGCCTCCTCAGCAACACCACCAGCATGGGGCGCTGGGAGCTCGTGGGCTCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             346 GCCGGGCGTCTTTTGTATCTTCTATGCACTGGTGGCGATCCCCACTGTTCGGGATGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       503 écréccédecirerrecarérretritéceérreresearecaderaaceresisers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526 ITCCTGCTGATCGGCTGCCTGTTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     586 GAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     731 gagggerggaggracacagagggerrerachtererererererenegaggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      791 Tredeceactacerdentegaargaaceeerceagaggraeecacretegraeaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  703 CIGGIGIGGITCIGGAICTIGICCIAGCCIAGCCIACTICGCCICAGIGCICACCACCAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Curtis, Rory A.J.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B
CURRENT FILING DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR PILING DATE: 1999-03-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         226 GAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466 GCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 10.4%; Score 124.4; DB 4; Best Local Similarity 54.5%; Pred. No. 5.3e-25; Matches 301; Conservative 0; Mismatches 236;
PRIOR APPLICATION NUMBER: US 09/259,951
PRIOR FILING DATE: 01-03-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 4, Application US/09431367B; Patent No. 6670149; GENERAL INFORMATION:
                                                                                                          NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
LENGTH: 1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      763 GGCAACTGGTTG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      911 crcrcccaccrc 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: CDS
; LOCATION: (122)..(1117)
US-09-561-763-4
                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
```

4.

```
378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 ccaadaaaaactactacacacacaaagctgcatrcigcitcaaddagtrcccdgigccidgdtc 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161 Adgałdedeciridakcakearterrackaciarreridardergecakdakeaddardregeda 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rcacagggaaccagactrcaacaac------rggaactggcccaargcaa 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTTTCTCGGGGGCCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rgarititrockadockickirakckokokiradarkiddokatordadokoc 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344 ATGCCGGGCGTCTCTTTGTATCTTCTATGCACTGGGGATCCCACTGTTCGGGATGC 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/09431367B
Patent No. 6670149
GRNERAL INFORMATION:
GRNERAL INFORMATION:
TITLE OF INVERTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR TITLE OF INVERTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR TITLE OF INTERPRICE: MII-0740P
CURRENT PELING DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         614 GCTTCGGTGACTTTGTGGCCGGTGTGAACCCCAGCGCCAACTACCACGCCTGTACCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                326 cceccedrolocitoricial de contra de contra contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     464 AAGCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          434 ggcagriccitaccaalgagaggigidagrcigcggaaggcgcagarcacgigcacacacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          584 IGGAGAGCIGGAGCAAGITAGAAGCCAICIACTITGITATAGIGACICICACCACIGIAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTTTGGCGATTATGTACCCGGGGATGGCACAGAGCTCTCCAGCC---TACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     701 CGCTGGTGTGTTCTGGATCTTGGCCTAGCCTACCTTCGCCTCAGTGCTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674 Acricciógacicicicahiciacificaciócicciccicriccintíraticae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recrescescarcescarcescrescrescrescrescescescarcescresce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     379 --Cricacicresaricacrectrescancircircs esecencia eseciales esecencias esecuadas esecencias esecuadas esecencias esecuadas esecencias esecuadas esecencias esecuadas esecuadas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTCCTGCTGATCGGCTGCTGTTTTGTCCTCCACTCCTACCTTCGTGTTCTCCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          494 rchrcarcerenesecrecharicaceresers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    554 crakadedaridakactacarcakadedecrichactacrecricarckicarickicarick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCAGAAGAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAAGAGCTTGGAGGATTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCCAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44 TITACTICGIATCTGGGGCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACGAGCAGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rcraccrescarcedecescarcrrceaacrecreaaceacaaccacacacacacaa
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                   30;
                                                                                                                                                                                                                                                                   Length 1497;
                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                         Score 117.2; DB 4;
Pred. No. 5.5e-23;
0; Mismatches 328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 761 TCGGCAACTGGTTGCGAGCAGT 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           734 AGGTGAGCATGTTTGTGGAAGT
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 51.8%;
Matches 384; Conservative
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1497)
US-09-561-763-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-431-367B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ecccircircressicricité de la cristica de la contra de la contration de la contra del la contra della contra d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITGGCGATTATGTACCCGGCGATGGCACGGGCAGA---ACTCTCCAGCCTACCAGCCG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rrcieciciaciacia de la grante de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra del la contra de la contra del la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         851 Aridercricricricricritriccariccicariccircricricarical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGCGGGAGTCGGGGACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACATCGAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cr-----caaccacregecarcreardeagagaaaaaccacce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITITICICGGGGACCATCATCACCATCGGCTATGGCAATATAGTCTTACACAGAT 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULES AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      611 Agchagcrieggedecaccregcaégariérreachaégcécégrégériégégecreregé
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526 TICCIGCIGATCGCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGTGTGGTTCTGGATCTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rrcrirricrereteacearcaceacearederarederaredeaacereaececaacadeare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGGCGTCTTTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466 GCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
10.4%; Score 124.4; DB 4; Length
Best Local Similarity 54.5%; Pred. No. 5.3e-25;
Matches 301; Conservative 0; Mismatches 236; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/09561763
Sequence 3, Application US/09561763
Sequence 10. 666473
GENERAL INFORMATION:
TITLE OF INVERTION:
NOVEL POTASSIUM CHANNEL MOL-
FILE REFERENCE:
MIN-074CP2
CURRENT FILING DATE: 2000-04-29
FRIOR APPLICATION NUMBER: 09/431,367
FRIOR APPLICATION NUMBER: 09/431,367
FRIOR APPLICATION NUMBER: 09/431,367
FRIOR FILING DATE: 01-11-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 3
LENGTH: 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCAACTGGTTG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTCCCAGCTG 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                              FEATURE:
NAME/KEY: CDS
LOCATION: (122)..(1117)
US-09-431-367B-4
                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-09-561-763-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        406
```

셤

ò d

g

ò 쉽 ò g 8

g ò 셤

ò

g ઠે 셤 ò 셤 ò

ò

```
OKCAL.
FRATURE:
NAWE/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 3452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LOCATION: (
US-09-561-763-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCAGAAGAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGAAAACTACTACACACACAGAAGCTGCATCTGCTCAAGGAGTTCCCGTGCCTGGGTC 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAAGAGCCTGGAGGATTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCCAAACC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161 AGGAGGGCCTGGACAAGATCCTAGAGGTGGTATCTGATGCTGCAGGACAGGGTGTGGCCA 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 CAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221 TCACAGGGAACCAGACCTTCAACAAC------TGGAACTGGCCCAATGCAA 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTTTTTCTCGGGGACCATCATTACCATCGGCTATGGCAATATAGTCTTACACACAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266 TGATTTTTGCAGCGACCGTCATTACCACCATTGGATATGGCAATGTGGCTCCCAAGACCC 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344 ATGCCGGGCGTCTCTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGC 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              379 --CTGACGTGGATCAGTGCCCTGGGCAAGTTCTTCGGGGGACGTGCCAAGAGAC---TAG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464 AAGCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGC 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              434 GGCAGTTCCTTACCAAGAGAGGTGTGAGTCTGCGGAAGGCGCAGATCACGTGCACAGTCA 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTCCTGCTGATCGGCTGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTTCTCCTACA 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTCTCCAGCC---TACCAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701 CGCTGGTGTGGTTCTGGATCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCA 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              674 ACTICGIGGAGCICIGGAICIACIIGGGGCIGGCCIGGCIGICCCITITIGICAACIGGA 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTACTTGGTATCTGGGGCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                494 refrearcereresesesereiragiceacciesisareceacciricerariearea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         584 TGGAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTTTATAGTGACTCTCACCACTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                554 CTGAGGGGTGGAACTACATCGAGGGCCTCTACTACTCCTTCATCACCATCTCCACCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     404 TGCTGGCGGGAGTCGGGGACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            326 CCGCCGGTCGCCTCTTCTGTGTTTTCTATGGTCTCTTCGGGGTGCCGCTCTGC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ecrircégracitrigies construit de la construction de la construction
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             30;
                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 1497
                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches 328;
                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 5.5e-23;
                                                                                                                                                                                                                                                                                                                                                 9.8%; Score 117.2;
51.8%; Pred. No. 5.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    734 AGGTGAGCATGTTTGTGGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             761 TCGCCAACTGGTTGCGAGCAGT
PRIOR FILING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PATENTIN VEY. 2.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 51.8
Matches 384; Conservative
                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (1)..(1497)
US-09-431-367B-3
                                                                                                                  LENGTH: 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       524
                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                      FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
```

Sequence 1, Application US/09561763 Patent No. 6664373

RESULT 14 US-09-561-763-1

```
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110 CCAAGAAAAACTACTACACAGAAGCTGCATCTGCTCAAGGAGTTCCCGTGCCTGGGTC 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          170 AGGAGGGCCTGGACAAGATCCTAGAGGTGGTATCTGATGCTGCAGGACAGGGTGTGGCCA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       464 AAGCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGC 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTTTGGCGATTATGTACCCGGCGATGGCACCCGGCAGACTCTCCAGCC---TACCAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTICGIGGAGCICTGGATCTACTIGGGGCTGGCTGTCCTTTTTGTCAACTGGA 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAAGAGCCTGGAGGATTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               230 TCACAGGGAACCAGACCTTCAACAAC------TGGAACTGGCCCAATGCAA 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                275 rearriringcadedacedrearraceacearnegarareceaareregereceaagace 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  344 ATGCCGGGCGTCTTTTGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGC 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      404 TGCTGGCGGGAGTCGGGGACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCG 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGTTCCTTACCAAGAGGTGTGAGTCTGCGGAAGGCGCAGATCACGTGCACAGTCA 502
GENERAL INFORMATION:

APPLICANT: CURLIS, Rory A.J. et al.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND .USES THEREFOR FILE REPRENCE: MMI-014CP2
CURRENT TILING DATE: US/09/561,763
CURRENT APPLICATION NUMBER: US/09/561,763
FILE REPLICATION NUMBER: US/09/31,367
PRIOR APPLICATION NUMBER: US/09/31,367
PRIOR FILING DATE: 01-11-1999
PRIOR FILING DATE: 01-03-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PATCHLIN Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               335 CCGCCGGTCGCCTCTTCTGTGTTTTCTATGGTCTCTTCGGGGTGCCGCTCTGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50 rcraccrigecearcegesesesercriceaacrecresageseceacacacacaages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                224 CAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --creacercearcacrecerceceaerrerrerresceaecreceaeaeae---rac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            524 TCTTCCTGCTGATCGGCTGCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                503 ICTTCATCGTGGGGGGTCCTAGTCCACCTGGTGATCCCACCCTTCGTATTCATGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           563 creacecerceaacracarceacecercracracrecrercercearcaccarce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ectrocercarcinerecegenergaaceceaececaaciaecacecercineracecer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44 TITACTIGGIAICTGGGGCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                584 TGGAGAGCTGGAGCAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCAGAAGAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCTGGTGTTCTGGATCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 3452;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cch 9.8%; Score 117.2; DB 4; al Similarity 51.8%; Pred. No. 8.1e-23; 384; Conservative 0; Mismatches 328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
```

```
셤
                                                                                                                               ò
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                      Gequence 1, Application US/09431367B

Facent No. 6670149

GENERAL INFORMATION:

APPLICANT: CURTIS, ROY A.J.

TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR

CURRENT PILING DATE: 1999-11-01

PRIOR PAPLICATION NUMBER: 09/259,951

PRIOR FILING DATE: 1999-03-01

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 3452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITACTIGGIAICIGGGGCTCTAGIGITCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50 renaceridacearcadadecacarericaadraceadadadadacacacacadadadada 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       275 rearritrecaeceaecercarraceaecarrecarracearareceaareceaaeaece 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344 AIGCCGGGCGICTTITIGIAICTICIAIGCACTGGTGGGGAICCCACTGITCGGGAIGC 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 335 cceccecraticitate de la contra del la contra della co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCTGGCGGGAGTCGGGGACCGGCTGGGCTCTCTCTGCGCCCGGGCCATCGGCCACATCG 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 388 --cricacidearicacidecercicacaagircircegegeaccideceaagac--rad 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464 AAGCAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGC 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       443 gecagriccitaccaadadagardidagrichdcddaaddcdcagarcacdrdcacadica 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTTCCTGCTGATCGGCTGCTGTTTTGTCCTCACTCCTACGTGTTCGTGTTCTCCTACA 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rchrcarcereregegerechagiceaccregagareceacciriceraricareges 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   584 TGGAGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAG 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      563 creadedegriciaactacarceadedecercractactecerrenteacearceaecearce 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               644 GCTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTCTCCAGCC---TACCAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCAGAAGAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    164 AGAAGAGCCTGGAGGATTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170 aggadegectregacaagartecragadergerarerdardergegadadadegegeden 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 CAGAAACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTTTTCTCGGGGACCATCATCACTACCATCGCCTATGGCCAATATAGTCTTACACACAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             230 TCACAGGGAACCAGACCTTCAACAAC---------TGGAACTGGCCCAATGCAA 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccaadaaaactactacacacacaaaactgcatctgctcaaddagtrcccgtgcctgggtc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 9.8%; Score 117.2; DB 4; Length 3452; Best.Local Similarity 51.8%; Pred. No. 8.1e-23; Matches 384; Conservative 0; Mismatches 328; Indels 30;
761 TCGGCAACTGGTTGCGAGCAGT 782
                                                                                        743 AGGrgAGCATGTTTGTGGAAGT 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (10)..(1506)
US-09-431-367B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
    à
```

Search completed: February 2, 2005, 20:30:38 Job time : 126 secs

Sequence

Run

```
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                           (1)..(1179)
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 1
LENGTH: 1182
                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-243-035-1
                                                                                                                                                                                                                                                                     US-10-243-035-1
                                                                                       249.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION:
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Appli
Sequence 30, Appl
Sequence 45, Appl
Sequence 20, Appl
Sequence 28, Appli
Sequence 28, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 13, Appli
Sequence 43, Appli
Sequence 43, Appli
Sequence 30, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Appli
                                             2005, 19:03:05 ; Search time 730 Seconds (without alignments) 9398.069 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                       1 atgcgcagcaccacactcct.....gagacaaggccgtgccggtg 1194
                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                               GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-352-684A-7
US-10-391-399-18
US-10-768-158-11
US-10-345-680-43
US-09-747-835A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                     S US-10-146-733-30
S US-10-345-680-45
S US-10-391-399-20
US-09-828-035-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-146-733-28
                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-243-035-1
US-09-828-035-3
                                                                                                                        4300275 segs, 2872944193 residues
                                                                        US-09-655-272-1_COPY_284_1477
                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                 nucleic search, using sw model
                                                                                                    IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                    length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
15
18
15
9
                                                                                                                                                                                                                                                                                                                                                                                                                                      15
15
15
9
                                                                                                                                                                                                                                                                                                                                                                                                           Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                         11182
11257
11257
11260
11408
11408
11408
11408
11408
11408
                                               7
              Copyright
                                               February
                                                                                                                                                                                                                                                                                                                                                                                                    Query
                                                                                                                                                                                                                                                                                                                                                                                                                         Bed
Bed
                                                                                Perfect score:
                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                         814.4
814.4
814.4
814.4
814.4
814.4
814.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    814.4
814.4
811.4
                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                 OM nucleic -
                                                                                                                                                    四四四
                                                                                        Sequence:
                                                                                                                                                                                                   Database
                                                                                                                                                   Minimum
                                                                                                                                                          Maximum
                                               ë
ë
                                                                                                                                                                                                                                                                                                                                                                                                                          Result
                                                                                                                                                                                                                                                                                                                                                                                                           Š
```

```
Sequence 195, App
Sequence 195, App
Sequence 28, Appl
Sequence 28, Appl
Sequence 3587, Ap
Sequence 31, Appl
Sequence 105, Appl
Sequence 11, Appl
Sequence 11, Appl
Sequence 12, Appl
Sequence 132, Appl
Sequence 4235, Appl
Sequence 302450, Sequence 302450, Sequence 302450, Sequence 302450, Sequence 3143, A
Sequence 83143, A
Sequence 11, Appli
Sequence 12, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 14, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 18, Appli
Sequence 18, Appli
Sequence 18, Appli
Sequence 18, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/10243035
Publication No. US20030049697A1
GENERAL INFORMATION:
APPLICANT: LAZDUNSKI, MICHEL
APPLICANT: LESAGE, FIORIAN
APPLICANT: LESAGE, FIORIAN
APPLICANT: MAINGRET, FRANCOIS
TITLE OF INVENTION: NEW FAMILY OF MECHANOSENSITIVE HUMAN POTASSIUM CHANNELS
FILE REFERENCE: 1317-02
CURRENT APPLICATION NUMBER: US/10/243,035
CURRENT FILING DATE: 2002-09-13
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Appli
Sequence 5, Appli
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arececaecaccaccaccreeccreecececaecacaccreerracriserracriserereer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 13,
Sequence 38,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 14; Length 1182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
6 US-10-312-312-30

US-09-747-8158A-28

5 US-10-117-722-195

6 US-10-117-722-195

6 US-10-312-312-28

6 US-10-312-312-28

6 US-10-376-774-1249

7 US-10-430-201-3588

1 US-09-852-386-34

0 US-00-027-632-42355

3 US-10-027-632-42355

5 US-10-027-632-83143

1 US-09-828-746-5

0 US-10-027-632-83143

0 US-10-037-632-83143

0 US-10-37-632-83143

0 US-10-37-632-83143

0 US-10-37-632-83143

0 US-10-348-746-1

0 US-10-348-746-1

0 US-10-343-363-38

0 US-10-243-035-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 68.2%; Score 814.4; DB 14; Best Local Similarity 81.5%; Pred. No. 1.2e-233; Matches 973; Conservative 0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-459-190-1
US-10-451-892-5
US-10-459-190-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
            SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                        11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
11018
```

```
CCCGGCGATGCCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601 TIAGAAGCCAICTACTITGITATAGIGACTCTCACCACTGIAGGCTITGGCGAITAIGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                crocaccarcractricicatagraecerraccaccerescerrascacraters
           Sequence 3, Application US/09828035

Patent No. US20020034781A1

GENERAL INFORMATION:

APPLICATY: Gluckemann, Maria A.

TITLE OF INVENTION: 12303, A NOVEL HUMAN TWIK MOLECULE AND USES THEREOF FILE REPERENCE: MNI-142

CURRENT APPLICATION NUMBER: US/09/828,035

CURRENT FILING DATE: 2001-04-06

PRIOR APPLICATION NUMBER: 60/195,734

WUMBER PO SEQ ID NOS: 3

SOFTWARE: Patentin Ver. 2.0

SEQ ID NOS: 3

SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGCATGTGCCACCGGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCTGCTCTTTGTCCTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 gcrcragrgrgrrccaggcrcrrgaagcagccrcacaagcagcagcrcagaaaaaaagaar
                                                                                                                                                                                                                                                                                                                                                                                             121 CATGGCCGAGATTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       139 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCAGGAGGAGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                         181 ITCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ricaircritriaiacacraaraaaarrccacrarraasarccracrasasasarcacs
                                                                                                                                                                                                                                                                                                                   199 GAGGTCCGAGAGAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGAGCACTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AATAGCAGCAACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                     1 ATGCGCAGCACCACACTCCTGGTCCTGCTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                          tch 68.2%; Score 814.4; DB 9; al Similarity 81.5%; Pred. No. 1.2e-233; 973; Conservative 0; Mismatches 206;
                                                                                                                                                                                TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                      ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1257)
US-09-828-035-3
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 973; Conserv
                                                                                                                                                                      LENGTH: 1257
RESULT 2
US-09-828-035-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGGTGGCTGTCGCGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCCCGGCTCCCTGCACCCGCAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1006 GCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGATACGCAGAGC 1065
                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGTCCCGCCGAACTCGGGCAGATGGCTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCAGAGAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTATCTTCTATGCACTGGGGATCCCACTGTTCGGGATGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                  TTAGAAGCCATCTACTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                717
                                                                                                                                                                                                        417
                                                                                                                                                                                                                                                   477
                                                                                                                                                                                                                                                                                               reccacereceacededaecraeradaagenecrerecededarecririrecrecresidades 537
  CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCCAGAAGAGCCTGGAGGAT 180
                240
                                                                                         AATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300
                                                                                                                297
                                                                                                                                       ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTT 360
                                                                                                                                                 1066 GAGCGCGGCTGCCCCGCTGCCCCGCGCGCCGCCCCCAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                   GACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                            TGCCTGCTCTTTGTCCTCGTCCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                             crcarcaaeaagriescreareccereseaesesesereceaeceaeceaaecaaereseaec
                                                                                                                                                                                                                                                                           TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTTTGGCCTAGCCTTCGCCTCAGTGCTCACCACCATCGGCAACTGGGAGCA
                                             TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCAAACCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                         658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                    478
                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                   199
                            121
                                                181
                                                                        181
                                                                                              241
                                                                                                                     241
                                                                                                                                                                 298
                                                                                                                                                                                                            358
                                                                                                                                                                                                                                   421
     121
                                                                                                                                          301
                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                              B & B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                           g
                                                                                                                                                                              <u>ک</u> ۾
                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                     ∂
                                                               면. 강 <u>역</u> 강
                      유
                                            ે
```

Gaps

15;

Length 1257; Indels 138 120 198

9

240

300 375 360 540

615

480 555

420 495

셤

ઠે

ò

g

ઠે

셤

셤 ò 요

ઠે

g ò

ઠે

δ

```
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   616 recerecterrierecereaceceaecricererreserranaresassacresasses 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139 eccereciredricies de cercentes de contra d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199 GAGGTCCGAGAGAAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      259 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCAGAAACCAACAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGGGGGGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 TGTATCTTCTATGCACTGGTGGGATCCCACTGTTCGGGATGCTGCTGCGGGAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 436 recarcitritatececreereceatricecretrirecearceracreecadesercee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 GACCGGCTGGGCTCCTCTCTGCGCCGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGCTCATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             556 recenecrece central de la receneca del la receneca de la recen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1GCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 15; Length 1257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCGCAGCACCACACTCCTGCTCGCTGGCACTGGTGCTGCTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 68.2%; Score 814.4; DB 15; Best Local Similarity 81.5%; Pred. No. 1.2e-233; Matches 973; Conservative 0; Mismatches 206;
                                                                              PRIOR APPLICATION NUMBER: US 09/795,720
PRIOR APPLICATION NUMBER: US 09/826,035
PRIOR FILING DATE: 2001-02-28
PRIOR FILING DATE: 2001-04-06
PRIOR FILING DATE: 2001-04-11
PRIOR PILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: US 09/957,683
PRIOR FILING DATE: 2001-09-19
PRIOR FILING DATE: 2001-09-19
PRIOR FILING DATE: 2001-09-19
PRIOR PILING DATE: 2001-09-25
PRIOR PILING DATE: 2001-09-25
PRIOR PILING DATE: 2001-09-25
PRIOR FILING DATE: 2001-09-25
                                                    APPLICATION NUMBER: US 09/796,720
FILING DATE: 2001-02-28
APPLICATION NUMBER: US 09/828,035
2000-12-21
NUMBER: US 09/796,720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1)..(1257)
US-10-146-733-30
          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAPLICANT ON TOUR SOURCE SOLATION OF SEQUENCE 30, Application US/10146733

PUBLICANT NO. US20030165891A1

GENERAL INFORMATION NO. US20030165891A1

APPLICANT CURLIS ROTY A.J.

APPLICANT GLUCKSAMMIN, MARIA A.

APPLICANT GLUCKSAMMIN, MARIA A.

APPLICANT SILOS-SANIAGO, INMACAL TWRK-7, IC23927, TWIK-8, IC47615,

TITLE OF INVENTION NOVEL TWRK-9, alpha2delta-4, 54414, AND 53763 MOLECULES

TITLE OF INVENTION: HNMA-1, TWRK-9, alpha2delta-4, 54414, AND 53763 MOLECULES

TITLE OF INVENTION: AND USES THEREFOR

FILE REPERBRICE: MAI-48

CURRENT APPLICATION NUMBER: US 60/185,938

PRIOR APPLICATION NUMBER: US 60/185,520

PRIOR APLICATION NUMBER: US 60/195,734

PRIOR FILING DATE: 2000-03-03

PRIOR FILING DATE: 2000-04-07

PRIOR FILING DATE: 2000-04-19

PRIOR PILING DATE: 2000-04-19

PRIOR PILING DATE: 2000-04-19

PRIOR APPLICATION NUMBER: US 60/133,537

PRIOR APPLICATION NUMBER: US 60/235,638

PRIOR APPLICATION NUMBER: US 60/235,018

PRIOR APPLICATION NUMBER: US 60/235,639

PRIOR APPLICATION NUMBER: US 60/235,639

PRIOR PILING DATE: 2000-09-25

PRIOR PILING DATE: 2000-12-18

PRIOR PILING DATE: 2000-12-18

PRIOR PILING DATE: 2000-12-18

PRIOR PILING DATE: 2000-12-18

PRIOR PILING DATE: 2000-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1024 Addoccocaricocorroscococada Addocroadococorrococococados 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1084 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCGTGGCCTGTCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                         795
                                                                                                                                                                                                                                                               855
                                                                                                                                                                                                                                                                                                                                                            GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                          915
CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGGGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGGCCCGCCGCCGCCGCCGCCGGAAG
                                                                                                                                                            TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTCCCGCCGCACTCGGGCAGATGGGCGGCCTCACGGCTCAGGCTGCCAGGTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGGCGCCCCCGCCGCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1204
                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                          856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
```

셤

ò 원 ò g g à 셤 à g

ò

g ò

ð 엄 8 셤 à

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79 Arececaecaccaccaccreecccreerecreeccereererrecritaererregrereres 138
                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                          198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                      139 GCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACAGGCAGCAGGCCAGAGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199 GAGGTCCGAGAGAGATTCCTGAGGCCCATCCGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCAGAAACCAACAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436 IGCAICTICIAIGCGCIGGIGGGAIICCGCIGIIIGGGAICCIACIGGCAGGGGICGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496 GACCGGCTGGCCTCCCTCCCTGCGCCATGGCATCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCTGCTCTTTGTCCTCCTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 TIAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          736 GCCGGCGCGACCCCAGGCCCCCCCCCCCTATCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             796 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                      1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCGGCTGCGTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721 TIGITIGGCCIAGCCIACTICGCCICAGIGCICACCACCAICGGCAACIGGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                           Length 1260;
                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGGCAGCGCCTTCT
                                                                                                                                                                                                                           DB 15;
                                                                                                                                                                                                                       Score 814.4; DB 15;
Pred. No. 1.2e-233;
0; Mismatches 206;
                        Version
      66
Windows
                                                                                                                                                                                                                         Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                  TYPE: DNA
ORGANISM: Homo Sapiens
                                                                                                                                                             ; LOCATION: (1)...(1260)
US-10-345-680-45
NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 45
LENGTH: 1260
                                                                                                                                             NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34021, 44099, 25278,
62553, 302, 323,
2058 OR 6351 MOLECULES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCCCGATCCCCTTCGCCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCGTGGCTGTGCCCTGGCTTCGGGGTCGCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAGCCACTGC------TGCCTCCACCGCCCTGTCCAGCGCAGCCGTGGGC 1023
                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                   915
                                                                                                       795
                                                                                                                                                                                                                                                                                                          TIGITIGGCCIAGCCIACTICGCCICAGIGCICACCACCAICGGCAACIGGIIGCGAGCA 780
  CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                         CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                  crecricectroscrirectroscricaciones carcesea acresonado
                                                                                                                                                                                                                           GTGTCCCGCCGAACTCGGGCAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                Gecacagadacadececergacecaaceaaceaaceaacececececececececeaaaa
                                                                                                                                                                                                                                                                                                                                                                                       AGGCCCGGCTCCCCTGCACCCGCAGGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
TITLE OF INVENTION: WETHODS AND COMPOSITIONS FOR TREATING
TITLE OF INVENTION: WEDCOCICAL DISORDERS USING 1435, 559, 3402
TITLE OF INVENTION: UROLOGICAL DISORDERS USING 1435, 559, 3402
TITLE OF INVENTION: 12303, 985, 13237, 13601, 18926, 318, 2058
FILE REPERRNCE: MIDOZ-OL2PHRNM OWNI
CURRENT FILING DATE: 2003-01-16
PRIOR PLING DATE: 2003-01-18
PRIOR PLING DATE: 2002-01-18
PRIOR PLING DATE: 2002-02-28
PRIOR PLING DATE: 2002-03-15
PRIOR PLING DATE: 2002-04-19
PRIOR PLING DATE: 2002-14-10
PRIOR PLING DATE: 2002-1-21
PRIOR PLING DATE: 2002-1-21
PRIOR PLING DATE: 2002-1-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Millennium Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 45, Application US/10345680; Publication No. US20030148394A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-10-345-680-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1204
                                                                                                       736
                                                                                                                                             721
                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                                                                                                                                                                                                                            916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                661
                                                                                                                                                                                    964
                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                         901
```

Best Local Similarity		
Db 916 GGCACAGTGACCGCGCGCGCCCCCCCCCCCCCCCCCCCC	-20 Nov. US20030219806A1 Nov. US20030219806A1 Nov. US20030219806A1 Nov. US20030219806A1 Nov. US20030219806A1 Millennium Pharmaceuticals, Inc. Glucksmann, Maria Alexanndra Curtis, Rory A. J. Lora, Jose M. Galvin, Katherine M. Silos-Cantiago, Inmaculada NVENTION: NOVEL 18607, 15603, 69318, 12303, NVENTION: S2920, 5433, 38554, 57301, 58324 NVENTION: AND 33751 MOLECULES AND USES THE ENCE: MPI03-0200MNIM PLING DATE: 2000-03-03-18 ICATION NUMBER: US 09/789,481 NG DATE: 2000-08-08 ICATION NUMBER: US 09/583,373 ICATION NUMBER: US 09/583,373 ICATION NUMBER: US 09/583,373 ICATION NUMBER: US 60/36,984 ICATION NUMBER: US 60/36,984 ICATION NUMBER: US 60/36,984 ICATION NUMBER: US 60/36,936 ICATION NUMBER: US 60/36,936 ICATION NUMBER: US 60/36,936 ICATION NUMBER: US 60/195,734 NG DATE: 2001-03-12 ICA	Query Marcn 68.2%; SCOIG 814.4; DB 15; Length 1200;

g

ò

ð В

```
Sequence 28, Application US/10146733

Sequence 28, Application No. US20030165891A1

GENERAL INFORMATION:

APPLICANT: Curtis, Rory A.J.

APPLICANT: Curtis, Rory A.J.

APPLICANT: Glucksmann, Maria A.

APPLICANT: Glucksmann, Maria A.

TITLE OF INVENTION: HWMDA-1, TWIK-9, alpha2delta-4, 54414, AND 53763 MOLECULES

TITLE OF INVENTION: HWMDA-1, TWIK-9, alpha2delta-4, 54414, AND 53763 MOLECULES

TITLE OF INVENTION: AND USES THEREFOR

FILE REFERENCE: MI-248

CURRENT FILING DATE: 2002-05-15

PRIOR APPLICATION NUMBER: US 60/185,938

PRIOR APPLICATION NUMBER: US 09/515,520

PRIOR PLING DATE: 2000-02-29

PRIOR PLING DATE: 2000-03-03

PRIOR PLING DATE: 2000-04-07

PRIOR PLING DATE: 2000-04-07

PRIOR PLING DATE: 2000-04-11

PRIOR PLING DATE: 2000-04-11

PRIOR APPLICATION NUMBER: US 60/195,734

PRIOR PLING DATE: 2000-04-11

PRIOR PLING DATE: 2000-04-26

PRIOR PLING DATE: 2000-04-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1107 Addoccoccaricoccoccoccoccada Addocroadococcoccicoccoccado 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1167 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1227 GAGCGCGGCTGCCCCGCTGCCCCGCGCGCCCCCCCAATCCCCCCAGG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1059 GAGCAGCACTGC------TGCCTCCACCGCCCTGTCCAGGGGAGCGCTGGGC 1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841 GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCAGAAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                       818
                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                           878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GIGICCCGCCGAACTCGGGCAGAGAIGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                    759 ciegaeeccarcracrarercaracracectraccaccareecrarecratere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   879 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699 recerecererinerecereacececacerines receivarande adacecado
                                                                                                                                                                                                                                                                                                                                                               819 GCCGGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                             TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601 TTAGAAGCCATCTACTTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                         CCCGGCGATGGCACCGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-146-733-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                   g
                                                                                                                                                               δ
                                                                                                                                                                                                                엄
                                                                  GAGCGTGGCCTGCCTCGGGCTCCTCGGGGTCGCCGGCCGACCCAACCCAAA 1140
                                                                                                                                caccicione con contrator contrator con contrator con
GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TECATCITITATGCGCTCGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGTCGGG 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTTCCTGCTGATCGGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCAGGCTCAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 TICATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 ATCATCACTACCATCGCCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arcarcaccaccarcescrarescaareresccrescecacacarecesces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162 Arececaecaccacecrecrescerecresces are arectractractrastrasers 221
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09828035
Fatent No. US20020034781A1
GENERAL INFORMATION:
FAPELICANT: Glucksmann, Maria A.
FILE REFERENCE: MNI-142
CURRENT EPPLICATION NUMBER: US/09/828,035
CURRENT FILING DATE: 2001-04-06
FRIOR FILING DATE: 2000-04-06
FRIOR FILING DATE: 2000-04-07
NUMBER OF SEQ ID NOS: 3
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGTGCGGACCCAGAAACCAAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTATCTTCTATGCACTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACCATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                      1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                 AAGCCCGTGCGGCCCCCGGGCGCTCCCCGAGACAAAGGCGTGCCGTG 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATGCCCAGCACCACACTCCTGGCTCTGGCACTGGTGCTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 814.4; DB 9;
Pred. No. 1.2e-233;
0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY: CDS
; LOCATION: (84)..(1340)
US-09-828-035-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1408
                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
US-09-828-035-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               579
                                                                                                                                                                                                                                                                        1204
                                                                  1081
                                                                                                                                       1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
```

ò g ò g q

ð 셤 ⋧

8

දු පු

a

셤 ò ò

ò

```
Sequence 7, Application US/10352684A

Publication No. US20030215452A1

GENERAL INPORMATION:

GENERAL INPORMATION:

APPLICANT: Millennium Pharmaceuticals Inc.

APPLICANT: Mailennium Pharmaceuticals Inc.

APPLICANT: Mailen S.

APPLICANT: Weich, Nadine S.

TITLE OF INVENTION: 15513, 17822, 302, 5677, 194, 14393, 28059, 7366, 12212,

TITLE OF INVENTION: 15513, 17822, 302, 5677, 194, 14393, 28059, 7366, 12212,

TITLE OF INVENTION: 15402, 340, 10217, 837, 1761, 8990 OR 13249 MOLECULES

FILE REFERENCE: MPI02-019PIRNOWIM

CURRENT APPLICATION NUMBER: US 60/354,333

PRIOR FILING DATE: 2002-02-04

PRIOR FILING DATE: 2002-02-28

PRIOR FILING DATE: 2002-02-28

PRIOR FILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: US 60/364,476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1107 AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCCGCCTTCCCCGGCCCACGGCCTCG 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                    698
                                                                                                                                                        900
                                                                                                                                                                                                           758
                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                         818
                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                  759 CTGGAGGCCATCTACTTGTCATAGTGACGCTTACCACCGTGGGGCTTTGGCGACTATGTG
                                                                                                 639 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTTGCTGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                     | TGCCTGCTCTTGTCCTCACTCCTACGTGTTCTCCTACATGGAGAGAGCTGGAGCAAG
                                                                                                                                                                                                           699 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGGAAG
                                                                                                                                                                                                                                                                  601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                            661 CCCGGCGATGGCACCGGGCAGACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                     819 GCCGGCGCGCCCCCCCCCCCCCCCTATCAGCCCCTGGTGGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721 TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            879 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCGGGGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTCCCGCCGAACTCGGCAGAAGGGTGGCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1059 GAGCAGCCACTGC------TGCCTCCACCGCCCTGTCCAGCGCAGCCGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1227 gaddecedecrecederecedecededecedaagaardecedecedaaardecedeaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>ererccccccacrcaeacagaraeacacccccaccrcaeacrcaecraecraecraeacr</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-10-352-684A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                             481
                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                     ò
                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAAAAAAGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CATGGCCGAGACCAGTTCTGAGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  282 GAGGICCGAGAGAAGTICCIGAGGCCCCATCCGIGIGAGCGACCAGGAGCTGGGCTCC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           342 CTCATCAAGGAGGIGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCCCTCTTC 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          222 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGGCCAGAGGGAGCTGGGG 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Agcaacagcagccac---rcagccragaaccragacagcaccarcrrrrrrcragaacc 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162 ATGCGCAGCACCACGCTCCTGGCCTGCTGGCTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICATCAAGCICCIGGIIGAAGCCCIGGGAGGGGGGCGCAAACCCAGAAACCAGCIGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCTGGTGCTTTACTTGGTATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 15; Length 1408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 68.2%; Score 814.4; DB 15; Length Best Local Similarity 81.5%; Pred. No. 1.2e-233; Matches 973; Conservative 0; Mismatches 206; Indels
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: US 60/235,018
PRIOR FILING DATE: 2000-09-25
PRIOR PAPLICATION NUMBER: US 60/235,059
PRIOR PELING DATE: 2000-09-25
PRIOR PELING DATE: 2000-12-15
PRIOR PLING DATE: 2000-12-18
PRIOR FILING DATE: 2000-12-18
PRIOR FILING DATE: 2000-12-18
PRIOR PLING DATE: 2000-12-19
PRIOR PLING DATE: 2000-12-21
PRIOR PLING DATE: 2000-12-21
PRIOR PLING DATE: 2001-02-28
PRIOR PLING DATE: 2001-04-06
PRIOR PLING DATE: 2001-04-10
PRIOR PLING DATE: 2001-04-10
PRIOR PLING DATE: 2001-04-11
PRIOR PLING DATE: 2001-04-15
PRIOR PLING DATE: 2001-04-25
PRIOR PLING DATE: 2001-04-25
PRIOR PLING DATE: 2001-09-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (84)..(1340)
US-10-146-733-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
```

셤 ઠે 쉱 ò g

ઠ

요 ò ద ઠે ద ઠે 셤 8

Š

```
1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                            879
                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                721
                                                                                                                                                         781
                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                               δ
                                                         임
                                                                                              ò
                                                                                                                       g
                                                                                                                                                         ò
                                                                                                                                                                                                                        ò
                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAGAAGCCATCTACTTATAGTGACTCTCACCACTGTAGGCGTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOCCATGIGCCACCGGGGCTGGTGAGAGTCTGCCGCAGTGCTCTTCCTGCTGATCGGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTTTTTGCTATATGGAGGACTGGAGGAAG 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCATCACCATCGGCTATGGCAATATAGTCTTACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                riczircitatariacactiaaradaatrokactaritaadaicotactaadadaadada 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACCGGCTGGGCTCTCTGTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCATCAAGCTCCTGGTTGAAGCCCTTGGGGGGGGGGGCAAACCCAGAAACCAGTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     genenagnginecaggenenggageagecteacageageageageneagaaaaaaaaaaa 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gagereceaaaaakerrecreaaggeeeeareergrergagegaggagerggggeere 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTGCTCTTTGTCCTCCTTCGTGTTCTCCTACATGGAGAGCTGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rgrarcrictargeacregegarcccacrerreregargecregagagrege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 2002-03-15
PRIOR FILING DATE: 2002-04-26
PRIOR PELING DATE: 2002-04-26
PRIOR PELING DATE: 2002-04-26
PRIOR PELING DATE: 2002-06-06
PRIOR PELING DATE: 2002-06-06
PRIOR PELING DATE: 2002-06-06
PRIOR PELING DATE: 2002-06-07
PRIOR PELING DATE: 2002-06-07
PRIOR PELING DATE: 2002-06-03
PRIOR FILING DATE: 2002-07-03
PRIOR PILING DATE: 2002-07-31
PRIOR PILING DATE: 2002-08-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCGCAGCACCACACTCTCCTGCTGCACTGGTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1408,
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

68.2%; Score 814.4; DB 15; Length

Best Local Similarity 81.5%; Pred. No. 1.2e-233;

Matches 973; Conservative 0; Mismatches 206; Indels
                                                                                                                                                                                                                                                                                                                                                                                        ...(1343)
                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY: CDS
; LOCATION: (84)
US-10-352-684A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             222
                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
52991, 59914, 59921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCGIGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1227 GAGCGCGGCTGCCCCCCCGCGCGCCCGAGGTCGCCCCCAAATCCCCCCCAGG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCCCGGCCCCCTGCACCCGCAGAGATTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                 759 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                   GTGTCCCGCCGAACTCGGCCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                          ...-----ridccrcchcidciccrarccadcachdcacraddc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGTTTGGCCTAGCCTACTTCGCCTCAGTCCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                             819 gccdececeaaccccaecaacacaccccaeccrarcaeccecraragearcraearc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Milennium Fnarmaceuticais, inc.
APPLICANT: Glucksmann, Maria Alexanndra
APPLICANT: Glucksmann, Maria Alexanndra
APPLICANT: Glucksmann, Maria Alexanndra
APPLICANT: Glucin, Katherine M.
APPLICANT: Silose M.
APPLICANT: Silose M.
APPLICANT: Silose-Saniago, Inmaculada
TITLE OF INVENTION: NOVEL 18607, 15603, 69318, 12303, 48000,
TITLE OF INVENTION: AND 3751 MOLECULES AND USES THEREFOR
TITLE OF INVENTION: AND 3751 MOLECULES AND USES THEREFOR
TITLE OF INVENTION: AND 3751 MOLECULES AND USES THEREFOR
TITLE OF INVENTION: AND 3751 MOLECULES AND USES THEREFOR
TITLE OF INVENTION: AND 3751 MOLECULES AND USES THEREFOR
TITLE OF INVENTION UNMBER: US/10/391,399
CURRENT PELING DATE: 2003-03-18
PRIOR PLILOR DATE: 2000-05-31
PRIOR FILING DATE: 2000-05-31
PRIOR FILING DATE: 2000-05-32
PRIOR APPLICATION NUMBER: US 69/510,706
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR FILING DATE: 2002-12-04
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/094,214
PRIOR FILING DATE: 2001-12-04
PRIOR FILING DATE: 2002-11-0-08
PRIOR PRILING DATE: 2002-11-08
PRIOR PRILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/336,936
PRIOR APPLICATION NUMBER: US 60/094,214
PRIOR PRILING DATE: 2002-01-08
PRIOR APPLICATION NUMBER: US 60/096,036
PRIOR APPLICATION NUMBER: US 60/096,036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCCTTCCAGACCCCGGGGGTCCTGGGCGACTCCGAAGACAAGGCCGTGCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 18, Application US/10391399
Publication No. US20030219806A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 2002-03-08
APPLICATION NUMBER: US60/275,078
FILING DATE: 2001-03-12
APPLICATION UNMBER: US 09/828,035
```

```
GENERAL INFORMATION:

JAPPLICANT: Millennium Pharmaccuticals, Inc.

APPLICANT: Millennium Pharmaccuticals, Inc.

APPLICANT: Silos-Santiago, Immaculada

APPLICANT: Silos-Santiago, Immaculada

APPLICANT: Silos-Santiago, Immaculada

APPLICANT: Eliasof, Scott D.

TITLE OF INVENTION: PAIN AND PAINFUL DISORDERS USING 16386, 1423,

TITLE OF INVENTION: 936, 12303, 21425, 27410, 38554, 38555, 55063, 57145, 59914,

TITLE OF INVENTION: 94921, 16823, 33260, 58573, 30911, 85913, 14303, 16816,

TITLE OF INVENTION: 94921, 16823, 33260, 58573, 30911, 85913, 14303, 16816,

TITLE OF INVENTION: 94921, 16823, 188

TITLE OF INVENTION: 94921, 16823, 188

TITLE OF INVENTION: 9604-01-30

CURRENT PILING DATE: 2004-01-30

PRIOR PELING DATE: 2003-03-05

PRIOR PELING DATE: 2003-03-13

PRIOR PELING DATE: 2003-03-13

PRIOR PELING DATE: 2003-03-13

PRIOR PELING DATE: 2003-03-13

PRIOR PILING DATE: 2003-07-30

NUMBER OF SEQ ID NOS: 46

SEQ ID NO 11

LENGTH: 2747
                                                                                                                                                                     1106
                                                                                                                                                                                                                                                                                               1080
                                                                   999 GGCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGCCGCCGCCGCCGCCGCCGCGGAGAAG 1058
                                                                                                                                                                                                            961 AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                   1107 Aggcccccarccccrrcgccccccgagaaggcrcagccgccrrccccgcccacggcrca 1166
                                                                                                                                                                                                                                                                                                                                    1167 eccenciaritaricica decada acerce ecerticarica de adercerco da racidea de de 1226
                                                                                                                                                                                                                                                                                                                                                                                                                       1227 dadciecedecriececederiececedecedecedendariodecedecedecedaaarecedeaee 1286
  939 GIGICCCGCCGCACICGGGCAGAGAIGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                 1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                               GAGCGTGGCTGTGCCTCGCGCCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA
                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 68.2%; Score 814.4; DB 18; Length 2747; Best Local Similarity 81.5%; Pred. No. 1.5e-233; Matches 973; Conservative 0; Mismatches 206; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 11, Application US/10768158
Publication No. US20040204359A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (51)...(1310)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (1)...(2747)
OTHER INFORMATION: n =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo Sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                               1081
                                             841
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                원
                                           8 8
                                                                                                                 ò
                                                                                                                                                            셤
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCACCTTCTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTGCGGCGATGCTTTTCCTGCTGCTGATCGGC 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGITIGGCCTAGCCTACTICGCCTCAGIGCTCACCACCAICGGCAACIGGTIGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 282 GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                          162 Argedeckeckegereergeergergegegegeregerrigerrigerererger 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGGCTCAGAAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                222 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCAGCAGCAGCAGCCCAGAGGAGCTGGGG 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCTGCTCTTTGTCCTCACGCCCACGTTCTGCTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCGGCTGGGCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGCTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                       1 ATGCGCAGCACACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTAGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                   - See File Wrapper or PALM
                                                                                                                                                                                                                                                                                                                                                              15;
                                                                                                                                                                                                                                                                                                                       Length 1408
                                                                                                                                                                                                                                                                                                                   Score 814.4; DB 15; Length
Pred. No. 1.2e-233;
0; Mismatches 206; Indels
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: US 60/195,734
PRIOR FILING DATE: 2000-04-07
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 127
SOFTWARE: PastSEQ for Windows Version 4.0
ERQ ID NO 18
LENGTH: 1408
                                                                                                                                                                                                                                                                                                                   Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative
                                                                                                                                                                                                                                ; NAME/KEY: CDS
; LOCATION: (84)...(1343)
US-10-391-399-18
                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

```
Query Match 68.2%;
Best Local Similarity 81.5%;
Matches 973; Conservative (
                                                                                                                                                                                                                                                                                                                                                     ...(1323)
                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
LOCATION: (64)
                                                                                                                                                                                                                                                                                                                                                            US-10-345-680-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                     142
                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                202
                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
               8
                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCGTGGCTGTGCCTTCGGGGTTCCTCGGCGTCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCACAGTGACAGGGGAAGTGACCCAGGGGGGGCCCAGGGGCCCGCCGGCGAAAG 900
                                                                                                                                                                                                                                                                                                                             721 TIGTITGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                        846 CIGCICGGCCTGGCTTACTICGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAAGTA 905
                                                                                                                                                                                                                                                                                                                                                                            GIGICCCGCCGAAACTCGGGCAGAGATGGGTGGCCTAACGGCCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                                     725
                                                                                                                                                                                                                                                                                        601 TIAGAAGCCAICTACTITGTIATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA 660
                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                       TGCCTGCTCTTTGTCCTCACCTCCTACTTCTTCTACATGGAGAGCTGGAGCAAG 600
                                                                                                                                                                                                            CATGGCCGAGACCATTTCTGAGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 180
                                                                     308
                                                                                   240
                                                                                                 368
                                                                                                                300
                                                                                                                             425
                                                                                                                                           ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGGTCTTT 360
                                                                                                                                                    TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                      545
                                                                                                                                                                                                   GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                          GCTCTAGTGTTCCAGGCTCTGGAGCAGCGTCACAGCAGCTCAGAAGAAAATGGAT 120
                                         248
      dadchactarac-----ractroacacacacaacacaacacaad
                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGGCGATGGCACCCGACCCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                AATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                        TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGTGGACC
ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                               999
                                                                         249
                                                                                                                                                                                                         421
                                                                                                                                                                                                                                    481
                                                           121
                                                                                                                                  369
                                                                                                                                                                            361
                                                                                        181
                                                                                                                     241
                                                                                                                                                301
                                                                                                                                                              426
                               61
                                             189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                         S a
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                   S S
                                                                                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                        g
                                                                                                 B & B & B
                                                                                                                                                                        ò
                                                                                                                                                                                     d
                                                                                                                                                                                                    ò
                               상
원
                                                       6 B 6
             셤
```

```
34021, 44099, 25278,
62553, 302, 323,
2058 OR 6351 MOLECULES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGGCTCAGAAAAAGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
1194 GAGCGCGGCTGCCCCCCGCGCGCGCGAGAGTCGCCGCCGCAAATCCCCCCAAG 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGGAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 Argeschactocrescreterescrescrescrescrescrescriperracings are reserved and are recorded and are recorded as a recorded and are recorded as a recorded and are recorded as a recorded as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                               1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 43, Application US/10345680

Sequence 43, Application US/10345680

Publication No. US20030148394A1

GENERAL INFORMATION:

APPLICANT: Millennium Pharmaccuticals, Inc.

APPLICANT: Workstewarlu, Karicheti

TITLE OF INVENTION: METHODS AND CONFOSITIONS FOR TREATING

TITLE OF INVENTION: 1230, 265089, 21407, 42032, 46556, 6255;

TITLE OF INVENTION: 12301, 260, 52689, 21407, 42032, 46556, 6255;

TITLE OF INVENTION: 12302, 01-16

FILE REPERENCE: MPIO2-012PIRNM CMN1

FILE REPERENCE: WORDER: US 60/349,511

PRIOR FILING DATE: 2002-01-16

PRIOR FILING DATE: 2002-03-15

PRIOR FILING DATE: 2002-03-15

PRIOR FILING DATE: 2002-04-19

PRIOR FILING DATE: 2002-09-11

PRIOR PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 814.4; DB 15;
Pred. No. 1.5e-233;
0; Mismatches 206;
```

```
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1087 AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCTGCCTTCCCCGCCCACGGCCTCG 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTGGATTACCCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1147 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCGTGGCTGCCTCGGGCTCCTCGGGGTCGCCGGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1207 GAGCGCGGCTGCCCCCCCCCCCCCCGCCGAGACGTCGCCCCCAAATCCCCCCAGG 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIGITIGGCCTAGCTTCGCCTCAGTGCTCACCACCATCGCAACTGGTTGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      799 GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGTGGTGTGTTCTGGATC 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               498
                                                                                                                                                                                                                 TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                                                                        558
                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                              618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              recerecrerrierecreaceceaegracianicarecrararareaaeaerecaae 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGCCGAAGAAG 900
                                                                                            ATCAFCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    crecaegccarcracrirercaragreacecrraccaccreegccrrreeceacrarere 798
ATCATCACCACCGCTATGGCAATGTGGCCTTGCGCACAGATGCCGGGCGCCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCTGCTCTTTGTCCTCACTCCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA
                                                                                                                                                                                                                                                                        rdcarcrictardcdcreeregeaarrccgcrerrrdgdarccracregcagggege
                                                                                                                                                                                                                                                                                                                                   GACCGGCTGGGCTCCTCTCTGCGCCCGGGGCATCGCCACATCGAGCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                          eaccedericacerecerecearescarescarescareacareasascearerreaas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rescarecteccaccesasciastrasas a contrate contrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1267 AAGCCCGTGCGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                            301
                                                                                                                                                   439
                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                                                                                          559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                    382
                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                          요
                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                         δ
                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
RESULT 12
US-09-747-835A-30
; Sequence 30, Application US/09747835A
; Patent No. US20020146692A1
; GAPERAL INFORMATION:
; APPLICANT: Yamazaki, Victoria
; APPLICANT: Tang, Y. Tom
; APPLICANT: Liu, Chenghua
; APPLICANT: Zhou, Ping
```

```
APPLICANT: Enany, view
APPLICANT: Ren, Feiyan
APPLICANT: Ren, Feiyan
APPLICANT: Ren, Feiyan
APPLICANT: Ren, Feiyan
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Dimanac, Radoje T
TITLE OF INVENTION: LIKE) POLYPEPTIDES AND POLYNUCLEOTIDES
TITLE OF INVENTION NUMBER: US 09/729,739
PRIOR PELING DATE: 2000-12-04
PRIOR APPLICATION NUMBER: US 09/653,450
PRIOR PILING DATE: 2000-08-31
PRIOR PILING DATE: 2000-08-31
PRIOR PILING DATE: 2000-06-30
PRIOR PELING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/552,317
PRIOR PILING DATE: 2000-04-25
PRIOR PILING DATE: 2000-04-25
PRIOR PILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PATENTIN VARIEN: US 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PATENTIN VARIEN: US 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PATENTIN VARIEN: US 09/689,000
SEQ ID NO 30
LENGTH: 3345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1618 ATGCGCAĞCACCACGCTCCTGGCTGCTGGTGGTCTTGCTTTACTTGGTGTCTGGT 1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1338 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .798 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAACCAACTCGACC 1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1858 Agcaacagccac---rcagccragaaccrasscaaccaccrircrrrrrcrcassacc 1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2035 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541 IGCCIGCICITIGICCICACICCTACCTICGIGITCTCCTACATGGAGGCTGGAGCAAG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 GACCGGCTGCTCCTCTGCGCCCGGGCATCGACCAATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 3945;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 811.4; DB 9;
Pred. No. 1.3e-232;
0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 81.4%;
Matches 970; Conservative
Wang, Dunrui
Zhang, Jie
Ren, Feiyan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-747-835A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2215 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG 2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2275 GCGGGGGGCGCGGGCAGGCAGGCGCCGGGCTATCAGCCGCTGGTGGGTTCTGGATC 2334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                 1678 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACAGCAGCAGCAGCAGGAGCTGGGG 1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1738 GAGETCCAGAGAGAAGTICCTGAGGGCCCATCCGTGTGAGCGGAGCAGGAGGTGGGGCCTC 1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2335 ciecicedeciederiaciredeciedeneciedecaecaecaredegaaciederedeara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GIGICCCGCCGAACTCGGCCAGAGATGGGTGGCCTAAACGGCTACAGGCTGCTAGCTGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCACAGTGACAGGGGAGGTGACCCAGCGAACTGGGCCCCAGGGCCCCGGCCCCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ġriġricicicicicacacricadacaagaaraacacaccricacaacricaacricaacri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGTTTGGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2035 GACCGGCTGGGCTCCTCCTGCGCATGGCATCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recorectoring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601 TIAGAAGCCATCIACTITATATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 TGTATCTTCTATGCACTGGTGGGGATCCCCACTGTTCGGGATGCTGCTGGCGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1975 IGCAICTITIAIGCGCIGGTGGGGAITCCGCIGITIGGGAICCTACTGGGGTCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 GACCGGCTCGGCTCCTCTGCGCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481 TGGCATGTGCCACCGGGGCTGGTGAAATCTGTCCGCAGTGCTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 CATGGCCGAGACAGTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 TICATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCGCAAACCCAAAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGAGTGCCGGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                   1 Argeogradoraciócrociócrocroscacroscroscroscriraciras arregionados
                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                      Length 3945,
                                                                                                                                                                                                           Score 811.4; DB 16; Length
Pred. No. 1.3e-232;
0; Mismatches 206; Indels
                                                                                                                                                                                                             68.0%;
illarity 81.4%;
Conservative 0
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: Patentin version 3.0
SEQ ID NO 30
                                                                                            i LENGTH: 3945
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-312-312-30
                                                                                                                                                                                                                                      Best Local Similarity
Matches 970; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Zhang, Jue
APPLICANT: Zhang, Jue
APPLICANT: Zhang, Jie
APPLICANT: Zhang, Jie
APPLICANT: Rang, Dunrui
APPLICANT: Rang, Jue
APPLICANT: Ran, Felyan
APPLICANT: Ran, Felyan
APPLICANT: Agundi, Vinod
APPLICANT: Drananac, Radole T
TITLE OF INVENTION: LIKE) POLYPEPTIDES AND POLYNUCLEOTIDES
TITLE OF INVENTION: LIKE) POLYPEPTIDES AND POLYNUCLEOTIDES
TITLE OF INVENTION: LIKE) POLYPEPTIDES
TOURRENT FILING DATE: 2000-12-04
PRIOR APPLICATION NUMBER: US 09/620,312
PRIOR FILING DATE: 2000-07-19
PRIOR FILING DATE: 2000-07-19
PRIOR PLICATION NUMBER: US 09/520,317
PRIOR PAPLICATION NUMBER: US 09/552,317
PRIOR PLICATION NUMBER: US 09/552,317
PRIOR PILING DATE: 2000-04-25
PRIOR PLICATION NUMBER: US 09/488,725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGIGGCTGTGCCTCGGGGCTCCTCGGGGTCGCCGGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCCGGCTCCCCTGCACCGCAGAGAGTTGAGACTCCGTCCCCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Addecedantecentecedecededanddereadecaeentecedaeecaeened 2622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2515 dAGCAGCCACTGC-----TGCCTCCACCGCCTGTCCAGCGCAGCCTGGGC 2562
                                                                                                                                                                                                                                                                                                                                                                                                                                             2334
                                                                                                                                                                                                                                                                          2394
                                                                                                                                                                                                                                                                                                                                                     2274
                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u> akiciscis de crescristicos de cestas de cestas de cestas de contratos de cestas de contratos d</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                            GTGTCCCGCCGAACTCGGGCAAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGGCGATGGCACCCGGCCAGACCTCCCAGCCGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                            TTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCCATCGGCAACTGGTTGCGAGCA
                                   Tragaagccarcracrargrarragracrcracracraraggcrarggcgarraggra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 30, Application US/10312312 Publication No. US20040068097A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Hyseq, Inc.
APPLICANT: Yamazaki, Victoria
APPLICANT: Tang, Y. Tom
APPLICANT: Liu, Chenghua
APPLICANT: Zhou, Ping
APPLICANT: Wang, Dunrui
APPLICANT: Rang, Junrui
APPLICANT: Ren, Feiyan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -10-312-312-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                 2215
                                                                                                                                                                                            2275
                                                                                                                                                                                                                                                                                         2335
                                                                                                                                                                                                                                                                                                                                                                                   2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                               199
                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                    601
```

g

셤 ∂ 임 ð

g

ò

8 S

g

ઠ

g à g ò g ò 엄

ð

2454

1729 GCCCTGGTGTTCCGGGCCCTGGAGCCCGCGGGGCCCGGAGGGGCTGGGG 1788 121 CATGGCCGAGACCTGGAGCCACCCCTGTGTGAGCCCGCAGAGGGCTGGGGT 180 1	ACCORDIGATION
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 8 8 8 8 8	B G B
901 GAGGAACCACTCCTGCCTCTTTGCCGGCACCGCTGTTGTTGAGCCAGCC	US-09-47-935A-28 Sequence 38, Application US/09747835A Sequence 38, Application US/09747835A Sequence 38, Application US/09747835A Sequence 38, Application US/09747835A Sequence 38, Applicant Tong X. Tong APPLICANT Shang Julia APPLICANT Shang

```
1966 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTC 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1909 Agcaacagcagccac---rcagccragaactragacagccaccritriritricragaadd 1965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 TICATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCTCAGAAGAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGAGCCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGCGCAGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 811.4; DB 15; Length
Pred. No. 1.3e-232;
0; Mismatches 206; Indels
                                                                                                                                                                                                                                                                                                                                         APPLICANY: DIABORACY, Radoje T.,
TITLE OF INVENTION: No. US20030104529Alel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2B
CURRENT APPLICATION NUMBER: US/10/037,270
CURRENT FILING DATE: 2002-01-04
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR APPLICATION NUMBER: 09/552,317
SEQ ID NOS: 1104
SOFTWARE: pt FIL.genes Version 1.0
SEQ ID NO 195
Sequence 195, Application US/10037270
Publication No. US20030104529A1
GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68.0%;
llarity 81.4%;
Conservative
                                                                                                                                                                                                                                                                                                                               Tillinghast, John
                                                    Tang, Y. Tom
Liu, Chenghua
Asundi, Vinod
Zhang, Jie
Ren, Pelyan
Chen, Rui-hong
                                                                                                                                                                                                                   Yang, Yonghong
Wang, Jian-Rui
Zhou, Ping
Ma, Yunging
Wang, Dunrui
                                                                                                                                                             Zhao, Qing A.
Wehrman, Tom
Xue, Aidong J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (52)..(3996)
US-10-037-270-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 970; Conserval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                    APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
2026 HGCATCTTTATAGGGGTGGGGGATTCCGCTGTTTGGGATCCTACTGGGGGGTCGGG 2085
                                                                          2145
                                                                                                                                                                                                                                                      2266 checkarchachhercanachachcachtachcachcehecchridecancharene 2325
                                                                                                                                                                                                                                                                                                                  2385
                                                                                                                                                                                                                                                                                                                                                                             2445
                                                                                                                                                                                                                                                                                                                                                                                                                         961 AGGCCCGGCTCCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2614 Addecedatecetredecececedadadecreaecetrecedeceaecere 2673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021 GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2674 GCCCTGGATTATCCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 2733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081 GAGCGTGGCTGGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCAAA 1140
                                                                                                                                      2205
                                                                                                                                                                                                2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                       720
                                              480
                                                                                                         540
                                                                                                                                                                  009
                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841 GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCCCAGAGAAG 900
                                                                                                                                                                                                                                                                                                                                                                                                         781 GIGICCCGCCGAACTCGGGCAGAGAIGGGIGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                  2146 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                2206 recordentricatereneaececadenicarinarionariadaseaeridaae
                                                                                                                                                                                                                                                                                       661 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                               601 TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                      721 IIGITIGGCCIAGCCIACTICGCCICAGIGCICACCACCATCGCCAACIGGTIGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCGGCTGGGCTCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                         481 TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                    541 IGCCIGCICTITGICCICACICCIACCTICGIGITICICCIACAIGGAGAGCIGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                              g
                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                 à
                                                                           유
                                                                                                         8
                                                                                                                                     ద
                                                                                                                                                                       ò
```

Search completed: February 2, 2005, 22:13:15 Job time: 734 secs

au45h10.y BY260659 UI-M-BH0-ms40d02.r CH230-303

AGENCOURT DKFZp686H 603183572 AL537215 AGENCOURT

Pan trogl UI-R-BO1-

v148a01.8 AGENCOUR' Homo sapi Mus muscu

UI-M-HQ0

0B 0B

Minimum I Maximum I

Database

OM nucleic

Run on:

Sequence:

Searched:

```
Mus musculus Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus 1 (bases 1 to 1197)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14671302

Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Clark, A.G., Glanowski, S., Nielson, R., Lu, F., Murphy, B.,
Todd, M. A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Perriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M. D. and Cargill, M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 200550, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ATGCGCACCACACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AY405806 1197 bp DNA linear GSS 15-DEC
Mus musculus KCNK4 gene, VIRTUAL TRANSCRIPT, partial sequence,
                 AY418065
CB959623
BY280123
AI816233
BY260659
BY260659
BY418061
AA589478
BQ948206
AX418066
AX418066
AX418066
BY478651
BY478651
BY478651
BY478651
CKR070719
AY404469
AY404469
AY404469
AY404469
AY404469
AY404469
AY404469
AY404469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 1194; DB 9;
100.0%; Pred. No. 5.6e-299;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1197 /organism="Mus musculus" /mol type="genomic DNA" /db xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                  BZ201163
AA589478
BQ948206
AY418066
                                                                                                                                                                                                                                                                                                                             BX478651
BI914999
                                                                                                                                                                                                                                                                                                                                                                           AL537215
CK870719
AY404469
                                                                                                                                                                                                                                                                                                                                                                                                                                               AY404471
CN528767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="KCNK4"
/locus_tag="HCM2346"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY405806.1 GI:39761780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.0
Matches 1194; Conservative
11129
1113
772
413
4136
493
428
698
698
654
654
654
654
654
889
889
889
885
875
875
224.2
2220.8
2220.8
2202.8
2202.8
2202.8
2202.8
1177.2
1173.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
1171.2
117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
AY405806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UI-M-CG0p
UI-M-CG0p
full-leng
UI-R-B01-
Homo sapi
BX451513
BB569111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL537214
AGENCOURT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 603029871
UI-M-CG0p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus muscu
AMGNNUC:S
                                                                                                                                                       2, 2005, 16:25:10 ; Search time 4236 Seconds (without alignments) 10271.256 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY248534
UI-M-BH0-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UI-R-FF0-
Pan trogl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapi
AMGNNUC:N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   musca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY252956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                         1 atgcgcagcaccacactcct.....gagacaaggccgtgccggtg 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AY405805 F
AK036066 N
AK082153 N
CB808226 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BF565047 UBC067791 FBC067791 FBB569111 AL537214 CK653558 ABM942654 UBY248534 ECO039400 UBU759620 UBU759620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY252956 EAY418067 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AK031904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CR603880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65645750
                     GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                         32822875 segs, 18219865908 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                        US-09-655-272-1_COPY_284_1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                  nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE981482
BE981393
CR603880
BF565047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL537214
CK653558
BIJ58226
BM942654
BY248534
CC039400
BY26500
AY405805
AX036066
AX0362153
CB808226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AK031904
BY252956
AY418067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BX451513
                                                                                                                                                                                                                                                                                                                                                     IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99b est1:

99b htc::*

99b est43::*

99b est44::*

90b 98s1::*:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        469
1405
736
570
891
822
922
553
627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      613
1745
2534
406
2628
448
448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    590
593
1560
                                                                                                                                                                 February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21.3
20.2
19.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        814.4
540
529.6
517
484.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297.4
284.8
                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   318.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                340.8
```

GSS 15-DEC-2003

ö

Gaps

.; 0

11 12 13 14 16 16

υ

o

Result Š.

```
AY405804.1 GI:39761778
                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                    gene trios
                                                                                                                                                                                                                                                                                                                                                                                                14671302
                                                                                                                                                                  AY405804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Simi
Matches 973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bource
                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                      LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEATURES
                                                                                       RESULT 2
AY405804
                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                   셤
                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGTGGCTGTGCCTGCGTCCTCGGGGTCGTCGCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGITIGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGITIGGCCTAGCCTACTTCGCCTCAGTGCTCACCATCGGCAACTGGTTGCGAGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        grercececesascreggecaseas reserves estas esta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGGCGATGGCACCCAGGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGGTTCTGGATC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                   GACCGGCTGGGGCTCCTCTGCGCGGGGGGATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                        240
                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                          180
                              120
                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961 Aggeceggerecerracycecechagaadaargaagaricaarecerrecene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1996A1G196CACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         recorporation contection and an arrange and a recorporate and a rec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTAGAAGCCATCTACTTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTT
                                                                                                                                                                                                                                                                                              TTCATCAAGCTCCTGGTTGAAGCCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGAACC
ATGCGCAGCACCACCTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                  181
                                                                                                                                                                                               181
                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                              421
                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                           음 장
                                                                                                                                                                                          원
                                                                                                                                                                                                                  ò
                                                                                                                           g
                                                                                                                                                        à
                                                                  g
                                                                                                    \dot{\delta}
                                        à
```

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCATCACTACCATCGCCTATGGCAATATAGTCTTACACACAGATGCCGGGGGTCTCTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTAGTGTTCCAGGCTCTTGGAGCAGCTCAGGAGCAGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 carrecceadaccagrirereaggaccarecererereaggagecareaggar 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                             AY405804 1182 bp DNA linear GSS 15-DEC-2003
Homo sapiens KCNK4 gene, VIRTUAL TRANSCRIPT, partial sequence,
genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                             Bukaryotta, Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi, Mammalia; Eutheria; Primates; Catarrhin; Hominidae; Homo.

1 (Dases 1 to 1182)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGGGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 AATAGCAACCAACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A. Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A. Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Direct Submission Submission Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68 2%; Score 814.4; DB 9;
llarity 81.5%; Pred. No. 2.4e-200;
Conservative 0; Mismatches 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .1182
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
```

셤 **상** 원 g

ે

셤 ò

ઠે

g

g

ò

ò ద 셤

ò

셤

à

셤

셤

ò

g

ઠે

g

ծ

ò

```
590 bp mRNA linear EST 29-APR-2002 UI-M-CGOp-bdc-f-10-0-UI-S1 NIH_BMAP_Ret4_S2 Mus musculus cDNA clone UI-M-CGOp-bdc-f-10-0-UI 3', mRNA sequence.
BE991482
ESP81482.1 GI:10650633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           663 CGGCGATGGCACCCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTT 722
                                                                                                                                                                                                                                                                                /organism="Rattus norvegicus"
/mol type="mRNA"
/db xref="taxon:1016"
/clone="lib="W Rat hypothalamus (10464)"
/clone="Vector: pSPORT1; Site 1: Sal1; Site 2: Not1; W lypothalamus adult female Wistar rat avg. Insert size hypothalamus adult female Wistar rat avg. Insert size
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243 TAGCAGCAACCACTCATCAGCTTGGAACCTGGGCCACCCTTCTTTTCTCGGGGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242. CCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGTCACATCGAAGCAGTTTTCTTGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302 GCATGTGCCACCAGGGCTGGTGAGAATGCTGTTGCTGCGGTGCTCTTCCTGTTGATTGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGGCGCAAACCCAGAAACCAGGAACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 CATCAAGCTCGTGGCTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGTTGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 TAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 CATCACTACCATCGGCTACGGCAATATAGCCTTACACACAGATGCTGGGCGTCTTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGGCTGGGCTCCTCTCTGCGCCCGGGCATCGGCCACATCGAAGCAATCTTCTTGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  483 GCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   543 CCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGGCTGGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                362 CCTGCTCTTTGTCCTCACCTCCTACCTTCTTGTTCTTCCTACATGGAGAGCTGGAGCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                603 AGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTGGCGATTATGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 422 GGAAGCCATCTACTTTGTTATAGTGACACTCACCACTGTAGGCTTTGGCGATTATGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482 AGGCGATGGCACCCCGGCAGAACTCTCCCAGCCTACCAGCCGCTGGAGTGGTTCTGGATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGGGA
                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                           CA 91320-1799,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 540; DB 6; I
Pred. No. 4.1e-129;
                                                                               Contact: Dan Fitzpatrick
Amgen, Inc
One Amgen Center Drive, Thousand Oaks,
Tel: 805 447-4881
Plate: 00145 row: c column: 1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45.2%;
     Amgen EST Program.
Amgen Rat EST Program
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                     1, .581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
les 555; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S:
Matches 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
BE981482/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                              source
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   硆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAĞCGTGGCTGTGCCTGCCTCCTCGGGCTCCCCGACCCAACCCATCCAAA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CB606856 581 bp mRNA linear EST 16-MAY-2003 AMGNNUC:NRHY4-00145-Cl-A W Rat hypothalamus (10464) Rattus norvegicus cDNA clone nrhy4-00145-cl 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCCGGCTCCCCTGCACCCGCAGGAAGGTTGAGACTCCCGTCCCGCCCACGGCCTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        945
                                                           420
                                                                                                                   417
                                                                                                                                                                                                                             477
                                                                                                                                                                                                                                                                                                                                              537
                                                                                                                                                                                                                                                                                                                                                                                                                                                              597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTTGGCGACTATGTG 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                        TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                                                                                                                                                         GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                   1006 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGAGCCTGGAGAGAGC
                                                                                                                                                                           GACCGGCTGGGCTCCTCTGCGCCCGGGCATCGGCCACATCGAAGCAATCTTCAAG
                                                                                                                                                                                                                                                                                                                            TTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         658 GCCGGCGCGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTCCCGCCGAACTCGGGCAGAGAGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTGCAGCTGCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCCGCCGCCAGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1066 gadcicio de contrato de c
     ATCATCACCACCATCGGCTATGGCGAATGTGCGCCTGCGCACAGATGCCGGGCGCCTCTTC
                                                           TGTATCTTCTATGCACTGGGGGGATCCCACTGTTCGGGATGCTGCTGCGGGAGTCGGG
                                                                                                                                                                                                                                                                                         TGGCATGTGCCACCGGGGCTGGTGAAAGTCTGTCCGCAGTGCTCTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           recerecterriterecereaceaegracerecererarecerarares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGITITGGCCTAGCCTACTICGCCTCAGTGCTCACCACCATCGCCAACTGGTTGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCAGCCACTGC------TGCCTCCACCGCCTGTCCAGCGCAGCCGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACCAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCCCGTGCGGCCCCGGGCCCCCGGGCGTCCCCGAGAAGGCGTGTG 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:29546469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CB606856.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1126
                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                           478
                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                           538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                           361
                                                                                                                   358
                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
```

ö

Gaps

302 121 362 181 422 241 482 301 542

61

602 421 662 481

541

ACCESSION VERSION KEYWORDS

Rattus norvegicus (Norway rat) Sattus norvegicus Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae;

(bases 1 to 581)

REFERENCE

Rattus

EST

VERSION KEYWORDS SOURCE ORGANISM

LOCUS ACCESSION

RESULT 3 CB606856

셤

ઠ

셤

ò

```
Luby2-9643, UDA
Tel: 301 443 1706
Fax: 301 443 9890
Email: mEST@mail.nih.gov
Coligo-dT track not found, Not I site shown in beginning of sequence
Coligo-dT track not found, Not I site shown in beginning of sequence
is likely internal to the message. CDNA Library Preparation: M.B.
Soares Lab Clone distribution: Researchers may obtain BMAP CDNA
Soares Lab Clone distribution: Researchers may obtain BMAP CDNA
clones from RESEARCH GENETICS. It should be noted that Bento Soares
is generating a small number of additional specialized
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be
non-redundant arrays of BMAP CDNAs Whose availability will be availability will be availability will be availability will be available to the availability will be availa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
/organism="Mus musculus"
/mol_type="mRNA"
/etrāin="C57BL/6J"
/db xref="taxon:10090"
/dlone="Will-mC60p-bdb-f-11-0-UI"
/lab_host="DHIOB [Life Technologies]"
/clone lib="NH BMAP Ret4 52"
/clone lib="NH BMAP Ret4 52"
/note="Wector: pir73b-pec (Pharmacia) with a modified
/note="Wector: pir3b-rary for which this subtracted library from which this clone was derived, please
visit our web site at brainest.eng.ulowa.edu. The tissue
for this library was contributed by Dr. Xin-Yuan Fu, Yale
University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE981393
UI-M-CGGQ-bdb-f-11-0-UI.sI NIH_BMAP_Ret4_S2 Mus musculus cDNA clone
UI-M-CGGQ-bdb-f-11-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. (bases 1 to 593)

Bonaldo, M.F., Lennon, G. and Soares, M.B.
Normalization and subtraction: two approaches to facilitate gene
                                     361 renarciares de reservadas de la reconstrucció de la reconstruc
                                                                                                                                                                                                      421 GACCGGCTGCTCCTCTGCGCCGGGCCATCGGCCACATCGAAGCAATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                   TGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCTGAT 536
301 ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Chin, H
National Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, MD
20892-9643, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome Rés. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BE981393
BE981393.1 GI:10650455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 5
BE981393/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                윤
                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                  g
                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db.xere="Laxon:10090"
/db.xere="Laxon:10090"
/clone="UI-W-CGOp-bdc-f-10-0-UI"
/lab host="NIH BNAP Ret4 S2"
/clone lib="NIH BNAP Ret4 S2"
/note="Vector: pT/T3D-pac (Pharmacia) with a modified
polylinker; Site 1: Not 1; Site 2: Eco R1; The
polylinker; Site 1: Not 1; Site 2: Eco R1; The
polylinker; Site 1: Not I, Site 2: Eco R1; The
polylinker; Site 1: Not I, Site 2: Eco R1; The
NIH BNAP Ret4 S2 library is a subtracted library,
ultimately derived from mouse retina tissue libraries at
ultimately derived from mouse retina tissue library from which this clone was derived, please
various stages of development. For a detailed description
various stages of development solone was derived, please
visit our web site at brainest.eng.uiowa.edu. The tissue
for this library was contributed by Dr. Xin-Yuan Fu, Yale
University School of Medicine
TAG_SEQ=None found"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Object track not found, Not I site shown in beginning of sequence oligo-dr track not found, Not I site shown in beginning of sequence is likely internal to the message. CDNA Library Preparation: M.B. Soares Lab Clone distribution: Researchers may obtain BMAP CDNA clones from RESERACH GENETICS. It should be noted that Bento Soares is generating a small number of additional specialized non-redundant arrays of BMAP CDNAs whose availability will be considered under appropriate and limited collaborative arrangements. The tissue for this library was contributed by Dr. Xin-Yuan Fu, yale University School of Medicine Seg primer: Ml3 Forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 CAIGGCCGAGACCAGIIICIGAGGGACCAICCCIGIGAGAGCAGAAGAGCCIGGAGGAI 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TICATCAAGCTCCTGGTTGAAGGCCTGGGAGGGGGGGCAAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 TTCATCAAGCTCCTGGTTGAAGCCTGGAAGGGGGGGCGCAAACCCAGAAACAGCTGGACC 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATAGCAGCAACCACCTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACAGCAGGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I bases 1 to 590 Bonaldo, M.F., Lennon, G. and Soares, M.B.

Bonaldo, M.F., Lennon, G. and Soares, M.B.

Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGCCCAACCACACACTCCTGCTGCTGCTGCTGCTTTACTTGGTATCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               National Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, MD
20892-9643, USA
11: 301 443 1796
Fax: 301 443 8890
Email: mEST@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44.4%; Score 529.6; DB 2; 99.3%; Pred. No. 2.1e-126; ive 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                      Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .590
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Chin, H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 532; Conserv
                                                                                                                                                                                                                                                                                                          discovery
                                                                                                                                                                                                                                                                                                                                                                                97044477
                                                                                                                                                                                                                                                                                                                                                                                                                      8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                  ORGANISM
                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

Ή,

g δ

셤 ò ద

ò

a

ઠે

셤

ઠે

셤

ઠે

ద

ઠે

원

ઠ

ò

```
1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BF565047 11-DEC-2000 UI-R-BOI rattus norvegicus cDNA clone UI-R-BOI-ajm-g-02-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1015 GGCGGCGGAGAAGGAGCAGCACTGCT-------GCCTCCACCGCCCTGTCCAG 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       946
                                                                                                                                                                                                                                                                                                           586
                                                                                                                                                                                                                                                                                                                                          714
                                                                                                                                                                                                                                                                                                                                                                          646
                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        886
                                                                                                                                                                                                                                                                           654
                                                                                                                                                                                                                                                                                                                                                                                                          774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       655 TCCTGCTGATCGGCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAATCTTCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCT
                                                                                                                                                                                                                                                                                                             TCCTGCTGATCGGCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGG
                                                                                                                                                                                                                                                                                                                                                                            AGAGCTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCT
                                                                                                                                                                                                                                                                                                                                                                                             AGGACTGGAGCAAGCTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGGTTCTGGATCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCATCGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               767 ACTGGTTGCGAGCAGTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       895 ACTGGCTGCGAGTAGTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTAGCTGGACCGGCACAGTGACAGCGCGGAGTGACCCAGCGAACTGGGCCCAGCGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCGCCAGAGAAGGAGCAACCACTCCTGCCCTCTTTGCCGGCACCGCCTGCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        947 TTGAGCCAGCCGGCAGGCCCGGCTCCCCTGCACAGAGAAAGGTTGAGACTCCGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1063 CGCAGCCGCTGGGCAGGCCCCGATCCCCTTCGCCCCCGGAGAAGGCTCAGCCGCCTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1007 CGCCCACGGCCTCAGCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAACCCATCCAAAAAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCG
                                                                                                                                                                                                                Gapa
                                                                                                                                                                                                             12;
                                                                                                                                                                                Length 1560
                                                                                                                                                                                                             Indels
                                                                                                                                                                            Score 484.4; DB 3;
Pred. No. 1.4e-114;
0; Mismatches 131;
                                   1. .1560
/organism="Homo sapiens"
/mol_type="mRNA"
/db_Xref="taxon:9606"
/clone="cSoDF019YL24"
/tissue_type="Fetal brain"
/plasmid="pcMvSPORT_6"
             Location/Qualifiers
1. .1560
   of Invitrogen
                                                                                                                                                                            / Match 40.6%;
Local Similarity 80.4%;
les 585; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1187 TGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1303 TGCCGGTG
 division
                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                             527
                                                                                                                                                                                                                                                                                                                                                                            587
                                                                                                                                                                                                                                                                                                                                                                                                          715
                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
BF565047
LOCUS
DEFINITION
                                                                                                                                                                                             Best Loca
Matches
                FEATURES
                                                                                                                                                                                Query
                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                             ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage: BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR603880 1560 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CS0DF019YL24 of Fetal brain of Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGGCTGGGCTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAG 480
                                                                                                                                              495
                                                                                                                                                                              120
                                                                                                                                                                                                              435
                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGAGGGGGGGTCTTTT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          135
                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Li (bases 1 to 1560)
Li W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                  TTCATCAAGCTCCTGGTTGAAGCCCTGGGGGGGGGGCGCAAACCCAGAAACCAGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGGGGGAGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAATGGAT
                                                                                                                                                                                                             GCTCTAGTGTTCCAGGCTCTGGAGCAGCTCACGAGCAGCAGGCTCAGAAAATGGAT
                                                                                                                                                                                                                                           CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCAGAAGAGCCTGGAGGAT
                                                                                                                                                                                                                                                                                                          TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCTGGACC
                                                                                                                                                                                                                                                                                                                                                                            AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTCTCGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGGGTCTCTTT
                                                                                                              ATGCGCAGCACCACACTCCTGGCTGCTGGCTGCTTGCTTACTTGGTATCTGG
                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCATGTGCCACCGGGGCTGGTGAGAGTCTGT-CCGCAGTGCTCTTC 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 593;
                                                                               Indels
                                               Score 517; DB 2; L
Pred. No. 3.9e-123;
0; Mismatches 0;
TAG SEQ=None found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR603880
CR603880.1 GI:50484687
HTC; CNSLT_CDNA.
                                               / Match
Local Similarity 99.8%;
nes 528; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 1560)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (human)
                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                              554
                                                                                                                                                                                                             494
                                                                                                                                                                                                                                                                           434
                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                          314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134
                                                 Query Match
                                                                                                                                                                              61
                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74
                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR603880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                ORIGIN
```

```
is Strausberg, L. Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collinis, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Klausner, R.D., Collinis, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetcw, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, W.B., Bonaldo, M.F., Casavant, T.L.,
Schetz, T.E., Brownstein, M.J. Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Boask, S.M., McKernan, K.J., Male, S.J., Gardsk, S.M., McKernan, K.J., Male, S.J., Gardsk, S.M., Rodrigues, S.,
Worley, K.C., Hale, S., Gardsk, M., Gay, L.J., Hulyk, S.W.,
Vilalon, D.K., Wuzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Koudigues, S.,
Banchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, Y.S., Schein, J.B., Jones, S.J., and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 168 Row: o Column: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BC067791 110ear HTC 26-MAR-2004
Homo sapiens cDNA clone IMAGE:30345701, with apparent retained
                                                                                                                                                                                                                                      Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1405)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (19-MAR-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                 305 rescresascressas descresser de contrator de la reservaçõe de reservados de contrator de la reservaçõe de contrator de la contrator de la reservaçõe de la contrator de la 
                                                                                                                                                                  467 CAATCTTGAAGTGGCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCT
TGGCGGGAGTCGGGACCGGCTGGGCTCCTCTGCGCCGGGGCATCGGCCACATCGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL) DNA Sequencing by: Sequencing Group at the Stanford Human Center, Stanford University School of Medicine, Stanford, Web site: http://www-shgc.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Stefan Hansson
cDNA Library Preparation: Michael Brownstein / Ted Usdin
                                                                                                                                                                                                                                                                                                                                          NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BC067791.1 GI:45768264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1405)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC067791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 intron.
                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
BC067791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                     g
                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Rattus norvegicus"
/mol_type="mRNA"
/strain="Sprague-Dawley"
/strain="Sprague-Dawley"
/db_xref="taxon:10116"
/db_xref="taxon:10116"
/dev stage="adult"
/dev stage="adult"
/lab_host="biloB [Life Technologies)"
/lab_host="ulx-Bol!
/lab_ho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Soares, MB
Contact: Soares, MB
Controllated Laboratory for Computational Genomics
University of Iowa
375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA
Tel: 319 315 8256
Email: bento-soares@uiowa.edu
Email: bento-soares@uiowa.edu
Enail: bento-soares@uiowa.edu
Enail: bento-soares@uiowa.edu
Clones will be available through Research Genetics (www.resgen.com)
This clone is also available through the I.M.A.G.E. Consortium at
LiML (info@niage-Infl.gov). INAGE ID= 1798469
Seq primer: M13 Forward.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167 AGAGCCTGGAGGATTTCATCAAGGTCCTGGTTGAAGCCCTGGGAGGGGGGGCCAAACCCAG 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 227 AAACCAGCTGGACCAATAGCAACCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCT 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                347 CCGGGCGTCTTTTGTATCTTCTATGCACTGGGGGATCCCACTGTTCGGGATGCTGC 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245 CIGGGCGICICITITIGIALCITCTAGGCACIGGGGATCCCACTGTICGGGATGCTGC 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa; Chordata; Craniata; Vertebrata, Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 469)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107 AGAAGAAAATGGATCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35.2%; Score 420.2; DB 2; Length 469; 94.0%; Pred. No. 5.3e-98; ive 0; Mismatches 28; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genome Res. 6 (9), 791-806 (1996)
                                                                                                                          Rattus norvegicus (Norway rat)
BF565047.1 GI:11674777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 94.0°
Matches 437; Conservative
                                                                                                                                                                           norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . .469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8889548
                                                                                                                                                                                                                                                                                                               Rattus.
                                                                                                                                                                           Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               287
                                                                                                                                                                           ORGANISM
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

Genome CA 94305

```
Eukaryota; Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (base 1 to 736)

2 Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Rull-length cDNA libraries and normalization

Nu Dubblished (2001)

On May 22, 2003 this sequence version replaced gi:31026267.

Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRail: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr

Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr

st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-extrand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .736
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:0606"
/clone="CSODF019YL24"
/tissue type="FETAL BRAIN"
/dev_stage="fetal"
/clone lib="Homo sapiens FETAL BRAIN"
/dev_stage="fetal"
/clone lib="Homo sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and Scork sites of the pCMVSPORT 6 vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence belongs to sequence cluster 6303.f
For more information about this cluster, see
http://www.genoscope.cns.fr/cdna?s=CSOBAF015ZF10_AF01423_1&c=6303.f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BX451513 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone CSODF019YL24 5-PRIME, mRNA sequence.
                                                                                                                                                                            1094 CCCTGCCTCGGGCTCCTCGGGGTCGCCGACCCAACCCATCCAAAAAGCCTTCCAGAC 1153
                                                                                                                                                                                                                864 CTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCGGCCCTGGATTATC 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1034 CCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGTGAGCGTGGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  566 CCTTCGTGTTCTCCTACATGGAGGTGGAGCAAGTTAGAAGCCATCTACTTTGTTATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 CGTTCGTGTTCTGCT-TATGGAGGACTGGAGCTGGAGGCCATCTACTTTGTCATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  626 TGACTCTCACCACTGTAGGCTTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 736;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                   1154 CCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 405.4; DB 5;
Pred. No. 4.1e-94;
0; Mismatches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BX451513
BX451513.2 GI:47063398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34.0%;
80.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 80.3 Matches 505; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
BX451513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                      임
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                         8
                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCAGGCTCTGGATTACC 1033
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 15718766 This clone has the following problem: retained intron Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTCTTTTGTATCTTCTATG 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCGGCTATGGCAATGTGGCCCTGCGCAAGATGCCGGGCGCCTCTTCTGCATCTTTTATG 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            criacriceccicaereaceaceareagaacrascracaaracracaecea 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCTCTGCGCGGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAGTGGCATGTGCCAC 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCCGGCGAGAGAAGGAGCAACCACTCC 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGGACCGGCTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACCATCATCACTACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCGGGAGTCGGGGACCGGCTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   554 TCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGGCTGGAGCAAGTTAGAAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      614 ACTITGITATAGIGACTCTCACCACIGIAGGCTIIGGCGGAIIATGIACCCGGCGAIGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------GTGACGCTTACCACCGTGGGCTTTGGCGACTATGTGGCCGGCGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccasscassacrocosscorarcascosscristransias de conservados de conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGTTGAAGCCCTGGGAGGGGGCGCAAAACCCAGAAACCAGGCTGGACCAATAGCAGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGTTCTGGATCTTGTTTGGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTACTTCGCCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCAGTGTCCCGCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches 141; Indels 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccrcccrgcgcarcggrcacarrgaggcarcrr
                                                                                                                                                                                                                                                                                                                                                                                                                                             3;
                                                                                                                                                                                                                                                                 normal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .1e-97
                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pBluescript"
                                                                                                                                                                         | mol_type="mRNA" |
| db xref="taxon:9606" |
| clone="IMAGE:30345701" |
| tissue_type="Placenta, non |
| clone lib="NIH MGC_147" |
| lab_host="DH10B" |
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 419.4;
Pred. No. 1.1
                                                                                                                                                 /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                             35.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       697;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S:
Matches 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  918
                                                                                                                            source
                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

ò

ઠે

ઠે

ઠે

Š

ઠે

'n

Gaps

685 125

for

```
wagi, K., Fujiwake, S., Inoue, N., Corwa, K., Tanaka, T., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Mataura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. and Hayashizaki, Y. and Hayashizaki, Y. sequence analysis (RISA) system--384-format RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000) Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara, Y. and Hayashizaki, Y. Computer-based methods for the mouse full-length cDNA inbrary. Genome Res. 11 (2), 281-289 (2001) nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Kondo, S., Shinagawa, A., Salto, T., Kiyosawa, H., Yamanaka, I., Aizawa, K., Pukuda, S., Hara, A., Itoh, M., Kawai, J., Shibata, K. and Aizawa, K., Pukuda, S., Hara, A., Itoh, M., Kawai, J., Shibata, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGAAGGIIGAGACTCCGTCCCGCCCACGGCCTCAGCTCTGGATTACCCCAGTGAGA 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243 CTTIGCCGGCACCGCCTGCTGTTGAGCCAGCCGGCAGGCCGGCTCCCCTGCACCGG 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCAGCGAACTGGGCCCAGCGCCGCCGCCAGAGGAGGAGCAACCACTCCTGCCCTCCT 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Computational Analysis of Full-Length Mouse cDNAs Compared with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTGCCGGCACCGCTGCTGTTGTTGAGCCAGCCGGCAGGCCCGGCTCCCCTGCACCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clone_lib="RIKEN full-length enriched, 17 days embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACCGGCACAGTGACAGCGCGAGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
Please visit our web site (http://genome.gsc.riken.go.jp/)
further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31.8%; Score 379.2; DB 2; 98.0%; Pred. No. 2.5e-87; ive 0; Mismatches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="head"
/dev stage="17 days embryo"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Mus musculus"
|mol type="mRNA"
|strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db xref="taxon:10090"
/clone="3322402C04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 prepare mouse tissues.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sex="mixed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 98.0
Matches 384; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BB569111 RIKEN full-length enriched, 17 days embryo head Mus musculus cDNA clone 3322402C04 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              One Nov 2000 this sequence version replaced gi:11460019.
Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCCTTCATCGACGAGTCCTCAGACACGCAGAGTGAGCGTGGCTGTGCCCTGCCTCGGG 1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTCGGGGTCGCCGACCCAACCCATCCAAAAAGCCTTCCAGACCCCGGGGTCCTG 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mararyota; Metazoa; Rodentia; Sciurognathi; Muridae; Mus. Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus. I (Dases 1 to 570)

Arakawa; T. Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, R., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Silbata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashii, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y. Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             534 caccanándarcaccaccacanántececedadandececaracacacecededededededes
                                                                                                                                                             802
                                                                                                                                                                                                                                 245
                                                                                                                                                                                                                                                                                                 865
                                                                                                                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                                                                                                                                                                                                      925
                                                                                             185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fax: 81-45-503-9216
Email: genome-gas.riken.jp, URL:http://genome.gas.riken.jp/
Email: genome-resegas.riken.jp, URL:http://genome.gas.riken.jp/
Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K.,
Itch, M., Komo, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. . 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccicedictrandadecelerideretetretetretetretetretetretetradentaleer
                                                                                                                                                                                                                                                                                                 TGGGTGGCCTAACGGCACAGGCTGCTAGCTGGACCGGCACAGTGACAGCGCGAGTGACCC
                                                                                                                                                                                                                                                                                                                                         926 TGCCGGCACCGCCTGCTGTTGAGCCAGCCGGCAGGCCCGGCTCCCCTGCACCCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----cacceceratica de casa de consecue de contro de cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAAGGCTCAGCCTTCCCCGCCCACGGCCTCGGCCTGGATTATCCCAGCGAGAACC
                                                                                                                                                             CAGTGCTCACCACCATCGGCAACTGGTTGCGAGCAGTGTCCCGCCGAACTCGGGCAGAGA
                                                                                                                                                                                                                          cagitecticaccaticaecaactecereceactactereceeceeceecactee
                                                                                                                                                                                                                                                                                                                                                                                                                                  1166 GGCGACTCCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              594 GGCGTCCCCGAGACAAAGGCGTGCCGGTG 622
                                          CTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BB569111.2 GI:16449181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BB569111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414
                                                                                                                                                                                                                                               186
                                                                                                                                                                                                                                                                                                                   908
                                                                                                                                                                                                                                                                                                                                                                                       246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                              126
                                                                                                                                                                                  746
                                                                                                                                                                                                                                                                                                                                                                                                                                                    998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
BB569111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
```

g

₽ g à

q

a ò

à

g

g 8 유

ò

g

ð

ò

ö

862 182 982

g

ò

음 ò 셤

셤

ò

```
959 GCAGGCCCGGCTCCCCTGCACCCGCAGAGAAGGTTGAGACTCCGTCCCGCCCACGGCCT 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1019 CAGCTCTGGATTACCCCAGTGAGAATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGA 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1079 GTGAGCGTGGCTGTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCA 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                       365 GCGAGCGCGGCTGCCCCGCGCTCCGAAAGGTCGCCCCCAAATCCCCCCM 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NIH-MGC http://mgc.nci.nih.gov/.

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Ranchard Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Howard Jacobs
cDNA Library Preparation: Express Genomics
cDNA Library Preparation: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LiNL at:
http://image.llh.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae;
                                                                                                                                                                                                                                                                                                                             1139 AAAAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
771 GGCGGGGGGGGACCCCCAGGCACTCCCCSGCCTWTCAGCCGCTGGTGGTTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              485 GCARGCCCGGATCCCCTTCRCCCCMMRARAAAGWTCAGCCGCTTCCCMRCCCAGGCCT
                                                                                      TCTTGTTTGGCCTAGCCTACTTCGCCTCAGTGCTCACCACCCATCGGCAACTGGGTTGCGAG
                                                                                                                                711 Techéchedechedentachredentalidationes accarededa Acredences
                                                                                                                                                                                          779 CAGTGTCCCGCCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGA
                                                                                                                                                                                                                                            651 TAGTGTCCCACMGAAATCGAGAARARATGGG-CAWATCACAGATCARGCTWCCAGTTRWA
                                                                                                                                                                                                                                                                                                    CCGCCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGCCGCCAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                           305 RGAAACCCGTGCGGCYCCGCGGCTCCCGGGAACAAAAAARGCGTGCCGGTG 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CK653558
AGENCOURT_17673923 NIH MGC_237 Rattus norvegicus cDNA clone
IMAGE:7113258 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Rattus norvegicus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:7113258"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CK653558
CK653558.1 GI:41389050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 822)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST.
                                                                                      719
                                                                                                                                                                                                                                                                                                    839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
CK653558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                셤
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                8
                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                       ઢ
                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     On Feb 13, 2001 this sequence version replaced gi:12800707.

Contact: Genoscope Genoscope Genoscope Contact: Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr

18t strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand CDNA was digested with Not I and cloned into the Not I and EcoNY sites of the pCMYSPORT 6 vector. Library was not normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL537214 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone RODE019YL24 3-PRIME, mRNA sequence.
                                                                                                                                                                 GGGCTCCTCGGGGGTCGCCGCCGACCCCATCCAAAAAGCCTTCCAGACCCCGGGGTC 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Organ: brain; Vector: pCMVSPORT_6; 1st strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."
                                                                                                                                                                                                   423 GGGCTCCTCGGGGTCGCCGCCGCCCATCCAAAAAGCCTTCCAGACCCGGGGTC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660 ACCCGGCGATG-GCACCGGGCAGAACTCTCCAGCCTACCAGCCGCTGGTGTGGTTCTGGA 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 891)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                         ATCTGGCCTTCATCGACGAGGACCTCCTCAGACACGCAGAGTGAGCGTGGCCTGTGCCTC
        CAGAGAAGGTTGAGACTCCGTCCCCGCCCACGGCCTCAGCTCTGGATTACCCCCAATGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACATGGAGAGCTGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               creccrecrcrirismecreaceceaegricererrecreararacaaegaaegaaegaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTAGAAGCCATCTACTTTGTTATAGTGACTCTCACCACTGTAGGCTTTTGGCGATTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         831 GCTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence belongs to sequence cluster 6303.f

For more information about this cluster, see

http://www.genoscope.cns.ff/cdna?s=CSODF019DF12NP1&c=6303.f.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.4%; Score 374.4; DB 1; Length 891; 72.6%; Pred. No. 4.9e-86; ive 36; Mismatches 129; Indels 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="FETAL BRAIN"
/dev_stage="fetal"
/clone_lib="Homo sapiens FETAL BRAIN"
                                                                                                                                                                                                                                                                        CTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                        483 CTGGGCGACTTCGAGACAAGGGCCCGGCCGGG 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DF019YL24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AL537214.2 GI:45712855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 72.6
Matches 476; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               891
        303
                                                          1043
                                                                                                               363
                                                                                                                                                                 1103
                                                                                                                                                                                                                                                                        1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                    AL537214/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
```

셤

ઠે a ઠે

ઠે

426

533 868

```
BM942654 DIA-CGOD-bdb-f-11-0-UI.rl NIH_BMAP_Ret4_S2 Mus musculus CDNA clone UI-M-CGOp-bdb-f-11-0-UI.s', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 553)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
                                                                                                                                                                                                  /lab_loss_barrons of the most of the state of the state of the state of the male brains, dector: pCNV-SPORT6; Site 1: Not1; /note="Organ: brain; Vector: pCNV-SPORT6; Site 1: Not1; /Site 2: ECGNV (destroyed); RNA source anonymous pool of 6 male brains, dge range 23-27 yo. Library is oligo-dT primed and directionally cloned (ECGNV site is destroyed upon cloning). Average insert size 1.5 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 019. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360 TIGIAICTICIAIGCACTGGGGGAICCCACTGTTCGGGAIGCTGCTGGCGGGAGTCGG 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120 TCATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGAGCCCAGAAGAGCCTGGAGGA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134 AiGCGCAGCACCACTGCTCGCCCTGCTGCTGCTCTGCTTACTTGCTGCTCTGG 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              254 ggaggreceadaagartectigaggeeeerreteergregageeeraggagerg 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420 GGACCGGCTGGGCTCCTCTCTGCGCCGGGGATCGGCCACATCGAAGCAATCTTCTTG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180 ITTCATCAAGCTCCTGGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGGTGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240 CAATAGCAGCAACCACTCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTTCTCGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300 CATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGCGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCGCAGCACCAC-ACTCCTGGCTGCTGGCTGCTGGTTTACTTGGTATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 318.8; DB 4; Length 922;
Prod. No. 1.4e-71;
0; Mismatches 82; Indels 4;
                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="TMAGS:5200313"
/lab_host="DH108"
                     column:
p: 785.
http://image.llnl.gov
plate: LLAM11501 row: m col
High quality sequence stop: 7
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM942654.1 GI:19402517
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        26.7%;
ilarity 82.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simil
Matches 392; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
BM942654
                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₹
    /tissue type="testis, pooled"
/lab_host="bhloB TonA"
/clone=lb="MINH MGC_23"
/clone=lb="MINH MGC_23"
/note="Organ: testis; Vector: pExpress-1; Site_1: EcoRV;
/note="Organ: testis; Vector: pExpress-1; Site_1: EcoRV;
/note="Organ: testis; Vector: pExpress-1; Site_1: EcoRV;
Site_2: Not!; RNA obtained from testis tissue of 8 wk old
animal. Tissues were snap-frozen and kept at -80C Before
RNA extraction and purification (Tri-reagent method). cDNA
was primed using oligo-dT primer:
5'-pGATAGATYCTAGATGGCGGCCC(T,25-3' and cloned into
the EcoRV/NotI sites of pExpress-1. Size-selection >1.4kb
resulted in an average insert size of 2.4 kb. This primary
library is not normalized (normalized primary library is
NIH MGC_238) and was constructed by Express Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIT58226
633029871F1 NIH_MGC_114 Homo sapiens CDNA clone IMAGE:5200313 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1043 ATCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGTGAGCGTGGCCTGTGCCCTGCCTC 1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gagerecricagagricaceacacaaaccaarecaaaaaaaacerrecaaaaeeeeee 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAGAAGGITGAGACTCCGTCCCCCCCCACGGCCTCAGCTCTGGATTACCCCCAGTGAGA 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 922)
114-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                              862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            922
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.

Email: cgapbs-romail.nih.gov

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201 CCCAGAGAACTGGACCCGCGCCGCCGCCAGAGAAGGAGCAACCACTCCTGCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGCCGGCACCGCCTGCTGTTGTTGAGCCAGCCGGCCAGGCCCCGGGCTCCCCTGCACCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAGCGAACTGGGCCCCAGCGCCCCCCAGAGAAGGAGCAACCACTCCTGCCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                            803 AGATGGGTGGCCTAACGGCACAGGCTGCTGGACCGGCACAGTGACAGCGCAGAGTGA
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                      3,
                                                                                                                                                                                                                                                                                                                                           Query Match 28.5%; Score 340.8; DB 7; Length 822; Best Local Similarity 93.6%; Pred. No. 2.6e-77; Matches 367; Conservative 0; Mismatches 22; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          498 CTGGGCGTCTTCGAGACAAGGCCGTGCCGGTG 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BI758226.1 GI:15749804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
BI758226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BI758226
```

원

ò

g

셤 8 유 δ ద ò g à

ò

299

239

```
cDNA clone K230317009 5', mRNA seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22354683
                        BY248534
                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
PUBMED
                                                                                                                                                                                     REFERENCE
                        ACCESSION
                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:10090"
/clone="UI-M-CGOp-bdb-f-11-0-UI"
/lab host="DH10B (Life Technologies)"
/clone lib="NH BMAP Ret4 S2"
/note="Vector: pT7T3D-Pac"(Pharmacia) with a modified
polylinker; Site 1: Not I; Site 2: Eco RI; The
NIH BMAP Ret4 S2 library is a subtracted library,
ultimately derived from mouse retina tissue libraries at
various stages of development. For a detailed description
of the library from which this clone was derived, please
visit our web site at brainest.eng.uiowa.edu. The tissue
for this library was contributed by Dr. Xin-Yuan Fu, Yale
University School of Medicine"
                                                                                                                                                                                                                                                                                                              CDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa Clone Distribution: Researchers may obtain clones from Research Genetics (www.resgen.com).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCATGCTCAGAATAAAATGGAT 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGCCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGTCGAAACTAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGAGGAT 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGCAAACCCAGAAACCAGCTGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAGCGCCTTCTTTTTCTCGGGGACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCGCAGCACCACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTGGTATCTGGG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GCTCTAGTGTTCCAGGCTCTGGAGCAGCCTCACGAGCAGCAGCGCTCAGAAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICATCAAGCTCCTGGCTGAAGCCCTGGGAGGGGGCGCAGCAGCCCCAGAAACCACCTGGACC 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                 Email: mEST@mail.nih.gov
Tissue Procurement: Dr. Xin-Yuan Fu, Yale University School of
Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u> ATGCGCAGCACCACTCCTGGCTCTGCTGGCACTGGTGCTTTACTTAGTATCTGGG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                             Contact: Chin, H
Mational Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, MD
20892-8643, USB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 24.9%; Score 297.4; DB 5; Length 553; Best Local Similarity 96.5%; Pred. No. 4.4e-66; Matches 304; Conservative 0; Mismatches 11; Indels 0;
                        discovery
Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 ATCATCACTACCATC 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arcarcacraccarc 553
                                                                                                                                                                                                         Tel: 301 443 1706
Fax: 301 443 9890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .553
                                                                      97044477
                                                                                            8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                   MEDLINE
PUBMED
COMMENT
                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
```

BY248534 BYKEN full-length enriched, visual cortex Mus musculus

BY248534 LOCUS DEFINITION

```
Contact: Yoshinge Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Ephysical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan 7el: 81-45-503-9216
Eax: 81-45-503-9216
Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Aizawa,K., Mximura,T., Arakawa,T., Carninci,P., Fukuda,S.,
Hirozane,T., Imotani,K., Ishii,Y., Itoh,M., Kawai,J., Konno,H.,
Miyazaki,A., Murata,M., Nakamura,M., Nomura,K., Numazaki,R.,
Ohno,M., Sakai,K., Sakazume,N., Sastaki,D., Sato,K., Shibata,K.,
Shiraki,T., Tagami,M., Waki,K., Watahiki,A., Muramatsu,M. and
Hayashizaki,Y. Direct Submission
Computational Analysis of Full-Length Mouse cDNAs Compared with
Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
RIKEN integrated sequence analysis (RISA) system--384-format
sequencing pipeline with 384 multicapillary sequencer. Genome Res.
10 (11), 1757-1771 (2000)
Computer-based methods for the mouse full-length cDNA
encyclopedia: real-time sequence clustering for construction of a
nonredundant cDNA library Genome Res. 11 (2), 281-289 (2001)
cDNA library was prepared and sequenced in Mouse Genome
Encyclopedia Project of Genome Exploration Research Group in Riken
Genomic Sciences Genter and Genome Science Laboratory in Riken
Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Tissues were provided by Michela Fagiolini and Takao K. Hensch (
Laboratory for Neuronal Circuit Development Brain Science Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Yoshihide Hayashizaki
                                                     Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature 420, 563-573 (2002)
BY248534.1 GI:26430046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prepare mouse tissues.
```

```
181 ITCATCAAGCICCIGGIIGAAGCCCTGGGAGGGGGGCGCAAACCCAGAAACCAGCIGGACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                              261 GCTCTAGTGTTCCAGGCTCTGGAGCCACCTCACGAGCAGCAGCAGCAGAAAAAAGGAT 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 CATGGCCGAGACCAGTITCTGAGGGACCATCCCTGTGAGAGCCAGAAGAGCCTGGAGGAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201 AIGCGCAGCACCACACTCCTGCTCGCACTGCTGCTTTACTTGGTATCTGGG 260
                                                                                                                                                                                                                                                                                                                                                                                                                        GOTICTAGTICTAGGCTCTGGAGCAGCTCACGAGCAGCAGGCTCAGAAGAAAATGGAT 120
                                                                                                                                                                                                                                                                                                                                              1 ATGCGCAGCACCACACTCTGGCTCTGCTGGCTGCTTTACTTGGTATCTGGG 60
                                                                      | ...yosanism="Mus musculus"
| ...yos="mRNA"
| mol_type="mRNA"
| farain="657BL/60"
| db xref="taxon:10090"
| /cloin="K230317009"
| /cloine="type="visual cortex"
| /cloine_lib="RIKEN full-length enriched, visual cortex"
RIKEN 2-1 Hirosawa, Wako-shi, Saitama 351-0198 Japan ) whose assistance we gratefully acknowledge. Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 AATAGCAGCAACCACTCATCAGCTTGGAACCTGGGGCAGCGCCTTCTTTTCTCGGG 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                    Query Match
23.9%; Score 284.8; DB 5; Length 498;
Best Local Similarity 97.6%; Pred. No. 8.2e-63;
Matches 289; Conservative 0; Mismatches 7; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                    FEATURES
                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
```

Search completed: February 2, 2005, 20:13:45 Job time : 4243 secs

Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

Searched:

```
ACC20557 Mus muscu

ACC147519 Mus muscu

BCC033577 Mus muscu

BCC03557 Bos tauru

ACC00453 Homo sapi

ACC05848 Homo sapi

ACC05848 Homo sapi

AF259502 Rattus no

CQ718922 Sequence

AX1989 Sequence

AX1998 Sequence

AX1998 Sequence

AX1998 Sequence

BDC075022 Homo sapi

ACC75021 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U73488 Mus musculu
BD273738 Method fo
AF129399 Homo sapi
AR156458 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fink, M., Honore, E., Duprat, F., Lesage, F. and Lazdunski, M.

Novel mechanically sensitive mammal pocassium channel family
activated by polyumsaturated fatty acids and their use particularly
for screening medicines
Patent: WO 9945108-A 1 10-SEP-1999;
FINK MICHEL (FR); HONORE ERIC (FR); DUPRAT FABRICE (FR); LESAGE
FLORIAN (FR); CENTRE NAT RECH SCIENT (FR); LAZDUNSKI MICHEL (FR)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 07-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC062094 Mus muscu
BD273739 Method fo
                                                                                                  Homo sapi
Homo sapi
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                        Sequence
                              sequence
                                       AX278168 S
AX278166 S
AF248242 I
AF259500 I
AF259501 I
AF247042 I
                           4R221262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'note="unnamed protein product; Traak"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="unassigned DNA"
/db_xref="taxon:10095"
284. .1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /proteIn_id="CAC07710.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AX018705
Sequence 1 from Patent WO9945108.
AX018705
                                                                                                                                                                                                    AC150562
AP001453
AC005848
AF259502
                                                                                                                                                                                                                                                                                                                                                                                                                       AY148474
AF196965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC062094
BD273739
                                                      AX278166
AF248242
AF259500
AF259501
AF259501
                                                                                                                                            AC120557
                                                                                                                                                        AC147519
BC033577
                                                                                                                                                                                                                                                                                                                                                                 AX411765
AF385399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AR156460
BD228722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MMU73488
                                                                                                                                                                                                                                                                                                                     AY553324
BC075022
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF385401
                                                                                                                                                                                      AC098622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AF129399
                                                                                                                                                                                                                                                                           AX393903
                                                                                                                                                                                                                                                                                                                                                                                             AF385400
                                                                                                                                                                                                                                                                                                                                                                                                           AF279890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR156458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .1794
/organism="Mus sp."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX018705.1 GI:10042825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
                                                                                                                                            2
                                                                                                                                                                                                                                              9
                                                                                                                                         69.9 181489
69.9 223092
66.1 257210
52.8 173649
52.7 166356
46.6 568
39.1 1455
39.1 1614
                                                                                                                                                                                                                                                                                                                                                                                                                       1455
1614
1632
1644
1713
1713
2065
2484
2730
 1182
1182
1218
1257
1408
1544
1730
2747
3996
                                                       81.4
81.4
81.4
81.2
81.2
69.9
69.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus sp
                                        1692.5
1692.5
1692.5
1692.5
1692.5
1692.5
                                                                                                                                          1453
1453
1411
                                                                                                                                                                                     1374.5
1098
1095
1080.5
969
                                                                                                                                                                                                                                                                                                                                                                                                                       796.5
7933
7933
7844
7844
784
7784
778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
AX018705
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
Command line parameters:
-MODBL=frame+ p2n.model -DEV=xlh
-MODBL=frame+ p2n.model -DEV=xlh
-Q=/cgn2_1/USPTO_spool/USO9655272/runat_02022005_141714_6746/app_query.fasta_1.1102
-Q=/cgn2_1/USPTO_spool/USO9655272/runat_0202005_141714_6746/app_query.fasta_1.1102
-DB=GenEmbl -QFNT=fastap -SUFFTX=rge -MINNATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-UNITS=bits -START=1 -END=-1 - MATRIX=500 - TREMILEN=-2000000000
-USFR=USO9655272_@CGN 1 1 5970 @runat_02022005_141714_6746 -NCPU=6 -ICPU=3
-NO WAAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPEDCK=100 -LONGLOG
-FGAPOP=10 -WARN TIMEOUT=120 -WARN TIMEOUT=120 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPOR=7 - YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX018705 Sequence
BD140670 Novel mam
AF056492 Mus muscu
AF302842 Rattus no
                                                                                               2, 2005, 20:30:41; Search time 5607.24 Seconds (without alignments) 3356.607 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                   1 MRSTILLALLALVILYLVSG......SKKPSRPRGPGRLRDKAVPV 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                    9053458
             version 5.1.6
- 2005 Compugen Ltd.
                                                                   nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                      4526729 segs, 23644849745 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                               0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX018705
BD140670
AF056492
AF302842
                                                                                                                                                                                                                          Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
             GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                         US-09-655-272-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9b ba: *
9b_htg. *
9b_on: *
9b_on: *
9b_ov: *
9b_pi: *
9b_pi: *
9b_pi: *
9b_ro: *
9b_er: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1794
1794
1795
1194
                                                                                                February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenEmbl:*
                                                                                                                                                                                                                 BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0
100.0
100.0
95.0
```

Database

Score

Result Š

```
OS Unidentified
PN JP 2002505102-A/1
PN JP 2002505102-A/1
PN JP 2002505102-A/1
PD 19-FEB-1999 JP 2000534640
PR 05-MAR-1998 FR 98/02725
PI ERIC HONORE, MICHEL FINK, MICHEL LAZDUNSKI, FLORIAN LESAGE, PI FABRICE DUPRAT
PC C12N15/09, A61K31/7088, A61K38/00, A61R39/395, A61K38/
PC 00, A61P5/00,
PC A61P9/00, A61P21/00, A61P25/00, A61P25/28, CO7K14/705, CO7K16/28, PC C12N1/15,
PC C12N1/19, C12N1/21, C12N5/10, C12P21/02, C12P21/08, C12Q1/02, G01N33/ PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         acid, and method for using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strandedness: Double;
CC Topology: Linear;
CC Novel mammalian potassium channel families having mechanical
CC Novel mammalian potassium channel families having mechanical
CC Respectivity
                                                                  ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                        AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                              1364 GAGCGTGGCTGTGCCTGCGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAA
            1064 GTGTCCCCCCCGAACTCGGGCAGAGATGGCTGGCTCTAACGGCACAGGCTGCTAGCTGGACC
                                                 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLys
                                                                                                                                                                                                                         GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                    GluGlnProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                 1424 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1477
                                                                                                                                                                                                                                                                                                                381 LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G01N33/50, G01N33/53, C12N15/00, A61K37/02, C12N5/00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism='Unidentified'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   particularly for drug screening
Key Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activated by polyunsaturated fatty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3338888Et
                                                                                1124
                                                                                                                                   1184
                                                                                                                                                             321
                                                                                                                                                                                                                341
                                                       281
                                                                                                          301
                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
BD140670
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                            원
                    g
                                                8 8 8
                                                                                                                             요 요
                                                                                                                                                                               원
                                                                                                                                                                                                     à
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                     ò
               /translation="MRSTTLIALLALVLYLVSGALVFQALEOPHEQOAQXXMDHGRD
OFLRDHFCVSQKSLEDFIKLLVBALGGGANFETSWTWSSNIESAWNLGSAFFFSGTII
TTGYGNULVHTDAGRLLFCTFYALVGTPLFWGMLLAGVGDRLGSSLRRGIGHIEAIFLK
WHVPPGLIVRSLSAVLFELLIGGLLFVLTPTFVFSYMESWSKLEAIYFVTVTLTTVGFGD
YVPGDGTGQNSPAYQPLVWFWILFGLAYFASVLTTJGNWLRAVSRRTRAEMGGLTAQA
ASWTGTVTARVTQRTGPBAPPEKEQPLLFSSLPAPPAVVEPAGRPGSBAPAEKVETP
SPPTASALDYPSENLAFIDESSDTGSERGCALPRAPRGRRRFNPSKKFSRPRGPGRLT
DKAAVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cccescearescacescasaacrcrccasccraccascceccicarerererescrateres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGlualalleTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AspArgLeuGlySerSerLeuArgArgGlyIleGlyHislleGluAlailePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                           343
                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCATCACTACCATCGGCTATGGCAATATAGTCTTACACACAGATGCCGGGGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaLeuvalPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IlelleThrThrlleGlyTyrGlyAsn1leValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                       HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                              1794
398
0
0
0
                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                         (1-1794)
                                                                                                                                                                                                                                                         x AX018705
                                                                                                                                                             2e-83
2079.00
100.00%
100.00%
                                                                                                                                                                                                                                                           US-09-655-272-2 (1-398)
                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          824
                                                                                                                                                                                                                                                                                                              284
                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                  344
                                                                                                                                                                                                                                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                    Query Match
DB:
                                                                                                                                                                  No.:
```

\$ B \$ B \$ B \$

g

8

9 9 9 9

g 4

8 % 8

엄

à

g à 요 ò 엄

ò

1423

1303

340

1363 360

380

1243

320

1183

1124 GGCACAGTGACAGGCGAGTGACCCAGCGAACTGGGCCCCAGCGCCCCGCCGCCGCCGCCGCCGCCGCCGCCG	Db 1184 GAGCAACCACTCCTGCCCTCTTTGCCGGCACCGCCTGTTGTTGATGCCGGCC 1243 Qy 321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340	361 GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgProAsnProSer	Oy 381 LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlavalProVal 398	6 FH	>		Film, install, in Johnst, M. And Lazduns, J., No. 100, 100, 100, 100, 100, 100, 100, 100	98192450 9628867 2 (Bases 1 to 1795) 5: bases 1 to 795	and Lazdungki,M. Direct Submission Submitted (01-APR-1998) Institut de Pharmacologie Molec	cation/Qualifiers	: n	/notes-ports-lorang A+ channer subunit /codon start=1 /product="TRAAK K+ channel subunit" /protein_i=AAC40181.1"	/ CD XX E = "C 3.3 Z * 4.5 J A A A A A A A A A	MOVEDUNCALDAN LE BLINGOLINE VALIT EN VESTIFICATION LE LE VESTIFICATION LE LE VESTIFICATION	N nent Scores: 2e-83	Matches:
<pre>source 11794 /organiem="unidentified" /mol_type="genomic DNA" /db_xref="taxon:32644" ORIGIN</pre>	ignment Scores: ed. No.: ore: crent Similarity: ery Match:	1 MetArgSerThrIhrLeuLeuAl 	Oy 21 AlaLeuValPheGinAlaLeuGluGInProHisGluGInAlaGInLysLysMetAsp 40 	Oy 41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60	Oy 61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr 80	Oy 81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr 100 	Oy 101 IleileThrThrileGlyTyrGlyBnileValLeuHisThrAspAlaGlyArgLeuPhe 120	Oy 121 CysilePheTyralaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140	Oy 141 AspArgLeuGlySerSerLeuArgArgGlyIleGlyHislleGluAlailePheLeuLys 160 	Oy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180 	Qy 181 CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200	Qy 201 LeuGluala11eTyrPheValI1eValThrLeuThrThrValGlyPheGlyAspTyrVal 220	Qy 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTxpPheTxpIle 240	Oy 241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrTleGlyAsnTrpLeuArgAla 260	ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 	Qy 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300

1244 AGGCCCGGCTCCCTGCACCCGCAGAGGTTGAGACTCCGTCCCGCCCCACGCCTCA 1303 341 AlaleuAspTyrProSerGluàsnLeuAlaPhelleAspGluSerSerAspThrGlnSer 360	361 GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgAroBnProSerLys 380 1364 GAGCGTGGCTGCTGCTCGGGGCTCCTCGGGGCCCGACCCAACCCATCCAAA 1423 381 LV8ProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398	~1	N		NISM Rattus norvegicus Eukaryota; Metazoa Mammalia; Eutheria Rattus			FERENCE 2 (bases 1 to 1194) AUTHORS Kim,Y. and Kim,D. Direct Submission Direct Submission OURNAL Submitted (05-SEP-2000) Physiology, Finch University of Health	Sciences/The Chicago Medical School, 3333 Green Day Chciago, IL 6064, USA 3 (Dases 1 to 1194) Kim,Y. and Kim,D.		Sequence u On Dec 27, Ice		CDS 1. 1194 /note="KCNK4" /codon_start=1 /product="mechanosensitive tandem pore potassium channel"	/protein_id="AAK60504.2" /db_xref="G1:1798171.1" /tb_xref="G1:1798171.1AL1AL1VLVLVSGALVFYALEQPHEQQVQKDLEDGRD /translation="WRST7LiAL1AL1AL1VLVSGALVFYALEQPHEQQVQKDLEDGRD /translation="GFIKLVAEALGGGGANPETGRYNSGHESARNILGGFFFSGTII QFLKDHPCVSQKNLEGFIKLVAEALGGGGANPETGRYNSGHESARNILGGFFFSGTII	TTIGGORIA HATDAGRIPCE I FALVOLE LEGULLANG SERVOLERAS DERVACE TO WHY PEGLYRML SAVLPLI I GCLL FVI. TPFEVFSYNKSWSKIKA I YEVI VILTITVGFGD WHY PEGLYRML SAVLPLI I GCLL FVI. TPFEVFSYNKSWSKIKA I YEVI VILTITVGFGD YV PGDGTGONSPA YQFBYNFW I LFGLAYFAS VFTTI GNWLRAVSRRTRABMGGITAQA AVDFGTAPPPPREKOPLILESSLIPASPAN PRESPARPAREGESPAPAEKVETP ASWTGTVTARYTQRYGFGFREKOPLILESSLIPASPAN REGESPAPAREGESPAPAREKUETP	,	Alignment Scores: 4.88e-79 Length: 1194
90 % 100 00	& 8 &	S. Db RESULI	AF302842 LOCUS DEFINITION	ACCESSION VERSION KEYWORDS	ORG	REFERENCE AUTHORS TITLE	JOU	REFERENCE AUTHORS TITLE JOURNAL	REFERENCE AUTHORS	TITLE JOURN	REMARK COMMENT FEATURES SOU					ORIGIN	Aligi Pred
Percent Similarity: 100.00% Conservative: 0 Best Local Similarity: 100.00% Mismatches: 0 Query Match: 100.00% Indels: 0 DB:	US-09-655-272-2 (1-398) x AF056492 (1-1795) QY	Oy 21 AlaLeuvalPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40 	Qy 41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60 	Oy 61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr 80	Qy 81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr 100 	101	Oy 121 CysilePheryralaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140	Qy 141 AspargLeuGlySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeuLys 160 	Oy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180 	Qy 181 CysLeuLeuPheValLeuThrPrOThrPheValPheSerTyrMetGluSerTrpSerLys 200	Cy 201 LeuGlualalleTyrPheValIleValThrLeuThrThrValGlyAbGlyAspTyrVal 220	Oy 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrp11e 240	Qy 241 LeupheGlyLeuAlaTyrPheAlaSerValLeuThrThrileGlyAsnTrpLeuArgAla 260 	Oy 261 ValSerArgArgThrArgAlaGluWetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280 	Qy 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300 	Qy 301 GluGlnProLeuLeuProSerSerLeuProAlaProAlaValValGluProAlaGly 320	321

	RESULT 5 AR221261 LOCAS	REFERENCE 1 (bases 1 to 1182) AUTHORS Duckworth, D.M. and Chapman, C.G. TITLE Polynucleotides encoding a human potassium channel JOURNAL Patent: US 6426197-A 1 30-JUL-2002; FEATURES 11182 Source /organism="unknown" /mil tyna="nanning NNA"	eng ons	Query Match: 81.41\$ Indels: 5 DB: 6 Gaps: 2 US-09-655-272-2 (1-398) x AR221261 (1-1182) Qy 1 MetArgSerThrThrLeuLeuLeuAlaLeuLeuAlaLeuValLeuValLeuValSerGly 20	TTGCTTTACTTGGTGTCTGGT GlnalaGlnLysLysMetAsp	τ,		
9.17 11 11 11 12 18 19 19 19 10 11 10 11 11 11 11 11 11 11 11 11 11			CGGG	AlaValLeuPheLeuLeuIleGly 180	ThrValGlyPheGlyAspTyrVal 220 	GATC GATC GATA HIII		AGTGACCCAGAGAACTGGACCCAGCCCCCCCCCCAGAGAAG 900 OSERSELEUPROALaProProAlaValValGluProAlaGly 320
1975.50 Matches: 36.98	, 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		121 Cysteriety Antenderatory Trafficultion (1997) 361 TGTATCTTCTATGCACTGGGGATCCCACTGTTCGGGATGCTGCTGGCTG	161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIeGly	201 LeuGlualaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTy :::	61 41 21	261 ValSerArgArgThrArgAlaGluWetGlyGlyLeuThrAlaGlnAlaAlaSerTr	841 GGCACAGTGACAGCAGTGACCCAGAGAACTGGACCCAGCGCCCGCC
Score: Percent Similarity Best Local Similaa Query Match: DB: US-09-655-272-2 (1 OY 1 Metf Db 1 ATG OY 21 Alai	8 8 8 8 8	a & a &	3 8 6 8	& a & a	ራ 	8 6 8	ò 8 ò	4 & 4 &

Thu

```
/protein_id="CAC93796.1"
/db xref="d1:1598448"
/db xref="d1:1598448"
/translation="MRSTTLLAILALVLXIVSGALVFRALEQPHEODAQRELGEVRE
/translation="MRSTTLLAILALVLXIVSGALVFRALEQPHEODAQRELGEVRE
/transprovsdrengeldilikevabaldgdaDPETNSTSNSSHSAWDLGSAFFPSGTIIT
riggnvalrtdfdachlerifgthvgtplegtlllagvgdblcsslrhdighteriffth
ruppelnrvlsamlfligcllfvulptfvecymedwskleaiyfvivthrygfgdy
vagaddrgdspayQplvwfwilliglaYfasvlttigwalvyrsrrfardada
swigtvtrkvtgragpaapppekeQpllppppcCPAQplGRRRSPSPPERAQPPSPPTN
saldyrsbringrdbrbrdggrengsprd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspargLeuGlySerSerLeuArgArgGly1leGlyHislleGluAla1lePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   477
                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357
                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                  40
                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuGluhlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CysilePheTyrAlaLeuValGly1leProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                               | IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                              41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                        121 GAGGTCCGAGAGAGATTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGGACTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 AGCAACAGCAC---TCAGCCTGGGACCTGGGCAGCCCTTCTTTTTCAGGGACC
                                                                                                                                                                                                                                                                          MetargserThrThrleuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                    1182
328
24
41
5
                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                'note="unnamed protein product"
                                                                                                                                                                                                                                                       (1-1182)
                                                                                                                                                                                                                                                         x AX250709
                                                                                                                                                                               1.45e-66
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                         US-09-655-272-2 (1-398)
                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                 No.:
         CDS
                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1125
                                                                                                                                                                                                                                                                                                                                                                                                               1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                      945
                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                 320
                                                                                                                                                                                                                                                             280
                                                                                                                                                                                                                                                                                                                           897
                                         180
                                                               537
                                                                                    200
                                                                                                         597
                                                                                                                               220
                                                                                                                                                    657
                                                                                                                                                                         240
                                                                                                                                                                                     260
                                                                                                                                                                                                                             837
                   477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lazdunski, M., Lesage, F. and Maingret, F.
Novel family of mechanically sensitive human potassium channels activated by polyunsaturated fatty acids and use thereof Patent: WO 0168670-A 1 20-5EP-2001,
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS) (FR)
Location/Qualifiers
1..1182
//nol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                                                                                                                                                                                   LeupheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                      GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                                                                                                                                                                                                                                                                                                                  GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                         ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                       ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                      ------creccrececceccaded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gadededededecedendecededededadadanedecededededaanedecedada
                                                                                                                                                                                                                                                                         AspargieuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLy8
                                                                                   CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
              TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly
                                                     LeuGluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1182 bp
WO0168670.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX250709
Sequence 1 from Patent P
AX250709
AX250709.1 GI:15984447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (human)
                                                                                                                                                                                                                                                                                                                                                                           GAGCAGCCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1126
                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                                                                                                                                                                                                                                                                                                                                                           898
                                                                                                                                                                                                                                                                                                                                 838
                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                              221
                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                             718
                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                        778
                                                                                                                                                                                                                                                                                                            281
                          418
                                                191
                                                                   478
                                                                                          181
                                                                                                                538
                                                                                                                                    201
                                                                                                                                                         598
                                                                                                                                                                                                    658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
AX250709
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
```

g

8 8 8

원 장 원

\$ B \$

유 5 8

g ò

a ò g à ద ò 요 ò g

Š

157 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGAGCGACCAGGAGCTGGCCTC 2 2 2 2 2 2 2 2 2	334 AFCATCACCACCATGGGRANTGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTC 121 Cys1lePheTyrAlaLeuValG1y11eProLeuPheG1yMetLeuLeuAlaG1yValG1y	454 GACCGGCTGGGCTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly	DB 5/4 TGCCTGCTCTTTGFCCTCACGCTCGGTTCGGTTCTGCTATATGGAGGACTGGAGCAAG 633 Qy 201 LeuGluAlaIleTyrPheValIleValThrLeuThrThrValG1yPheG1yAspTyrVal 220	221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplle		301 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValGluProAlaGly 32	321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 322 ArgProGlySerProAlaProAlaGluThrProSerProProThrAlaSer 341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer	361 GluargGlyCysalaLeuProArgalaProArgalyArgArgArgArgArgArgArgArgArgArgArgArgArgA	RESULT 8 AX278168 LOCUS AX278168 1257 bp DNA linear PAT 01-NOV-2001
Qy 241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsmTrpLeuArgAla 260 Db 718 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCATCGGGAACTGGCTGCGAGTA 777 Qy 261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280 Db 778 GTGTCCGCCGCACTCGGGCAGAGATGGGCCTCACGGCTCAGCTGCAGTGGATT 837 Qy 281 GTGTCCGCCGCACTCGGGCAGAGATGGGCCTCACGGCTCAGCTGCAGTGGATT 837 Qy 281 GTATLYALAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Qy 301 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValGluProAlaGly 320 Db 898 GAGCACCACTGCTGCCTCCACGCCCTGTCCAGCGCAGCG	Qy 341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360 Db 1006 GCCCTGGATTATCCCAGCGACAACCTGGCCTTCATCCACGAGTCCTCGGATACGCAGAGC 1065 Qy 361 GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgArgProAsnProSerLys 380 Db 1066 GAGCGCGGCCCGCCCCGCGCGCCCCGCGCCCCCCCAGA 1125	Qy 381 LysProSerArgProArgGlyArgLeuArgAspLysAlaValProVal 398 	62 FION ION N DS	SOURCE ORGANISM Unknown. ORGANISM Unknown. Unclassified. Unclassified. AUTHORS Duckworth, D.M. and Chapman, C.G. AUTHORS Puckworth, D.M. and Chapman, C.G. TITLE Polynucleotides encoding a human potassium channel JOURNAL Patent: US 6426197-A 3 30-JUL-2002; FEATURES Location/Qualifiers	om/	Alignment Scores: Pred. No.: Score: Score: Best Local Similarity: Best Local Sality: But Match: Guery Match: 6 Gaps: Length: 1218 Matches: 328 Matches: 24 Mismatches: 41 Indels: 5 Gaps:	-09-655-272-2 (1-398) x AR221262 (1-1218) 1 MetArgSerThrTheuLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly 20	Db 97 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCAGGGCAGCCCAGGGGAGCTGGGG 156 Oy 41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60 :::::

```
1084 GCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321 ArgprodlyserproAlaProAlaGluLysValGluThrProserProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                    341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                  975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata; Euteleostomi;
Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                             280
                                                                                                                                                                                                                                                                                   915
                                                                                                                                                                 240
                                                                                                                                                                                         795
                                                                                                                                                                                                              260
                                                                                                                                                                                                                                      855
                                                                    200
                                                                                                                    220
                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLy6
                                                                                                                                                                                                                                                                                                                        GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                        221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                             ValSerargargThrargAlaGluMetGlyGlyLeuThralaGlnAlaAlaSerTrpThr
496 GACCGGCTGGGCTCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                      CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                 LeuGlualaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                               Glucksmann, M.A.
12303, a novel human twik molecule and uses thereof
12303, a novel human twik molecule and uses thereof
Patent: WO 0177329-A 1 18-OCT-2001;
MILLENIUM PHARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .1408
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
84. .1343
/note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX278166 1 from Patent WO0177329.
AX278166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX278166.1 GI:16605230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                             976 GAGCAGCCACTG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1204
                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                38
                                                                                                                                                                                                                                              961
                                                       929
                                                                              181
                                                                                                     919
                                                                                                                           201
                                                                                                                                                   919
                                191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX278166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                        D
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                 8
                                                                           & B
                                                                                                                     8
                                                                                                                                               요
                                                                                                                                                                           8
                                                                                                                                                                                                                   ò
                                8 8
                                                                                                                                                                                                                                                      /codon start=1
/pote=In id="CAD10537.1"
/bproteIn id="CAD10537.1"
/bproteIn id="CAD10537.1"
/b xref="G1:16605233"
/translation="MTTAPQEPPARPLQAGSGAGPAPGRAMRSTTLIALIALVILVIVV
/translation="MTTAPQEPPARPLQAGSGAGPABGGGADPE
SGALVERALEGPHEGOAPERGEMENERFERTRANHPCYSOGELGILIKEVADALGGGADPE
TNSTSNSSHSAMDLGSAFFFSGTITTTGYGNVALATDAGRILFCTFYALVGFPLFGIL
LAGVGDRLGSSLRHGTGHITATIFWGFGDVVAGAPFROSPAYDGARPARDLTITTGGLAYTTFYPC
YMEDWSKLEAT YFVLVTITYGFGDVVAGADPROSPAYDGAGPAPPEKEGLAFPYPC
TTGRWINNYUSRRTRAREGGLTAQAASWTGTVTARVTQRAGPAAPEKEGLAFPPP
CTAGWNINNYUSRRTRAPEGGLTAQAASWTGTVTARVTQRAGPAAPPEKEGCPLPRAPR
GRRRPNPPRKPVRPRGPGRPRDKGVPV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CysIlePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABPATGLEUGLYSETSETLEUARGATGGLYJISGLYHISILGGLUALAILLEPEULYS 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGNSETSERAGNHIBSELSERALATEDAGNLEUGLYSERALAPHePhePhePheSerGLYThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 PhellerygLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 ileileThrThrileGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glucksmann,M.A.
12303, a novel human twik molecule and uses thereof patent: WO 017329-A 3 18-OCT-2001;
MILLENIUM PHARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                     1257
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                 1. ->1257
/note="unnamed protein product"
                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                  3 from Patent WO0177329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      x AX278168 (1-1257)
                 Sequence 3 from Patent 1
AX278168
AX278168.1 GI:16605232
                                                                                                                                                                                                                                                                                                                                                                                                                      1.55e-66
1692.50
88.44%
82.41%
81.41%
                                                                 Homo sapiens (human)
                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                    DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                              ORGANISM
                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                      CDS
                                                                                                                                                                           PEATURES
                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

Score:

. a ò g ò g ò g ò

ð

g

g ò

g ò

998 300

938 280 1106

340

360

380

320

```
AGGCCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG 1166
                                                                                                                                                                                                                                                                                                                                                                                                                            1227 galciciosorios con de consecuente de consecuencia de cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1544 bp mRNA linear PRI 13-NOV-2000
2P domain potassium channel (KCNK4) mRNA, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases I to 1544). (Chapman, C. G., Maadows, H.J., Godden, R.J., Campbell, D.A., Duckworth, M., Kelsell, R.E., Murdock, P.R., Randall, A.D., Rennie, G.I.
                                                                                                                                281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                                                                                                                                                         ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
879 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                         GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                    341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1287 AAGCCCGTGCGCCCCCGGGCCCCGGGCGTCCCCGGGAAAAGCCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chapes 1 to 1544)
Chapman, C.G. and Duckworth, M.D.
Direct Submission
Submitted (21-MAR-2000) Biotechnology & Genetics, SmithKline
Beecham Pharmaceuticals, New Frontiers Science Park (North),
Avenue, Harlow, Essex CM19 5AW, UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cloning, localisation and functional expression of a more cerebellum specific, two pore domain potassium channel Brain Res. Mol. Brain Res. 82 (1-2), 74-83 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
/product="2P_domain_potassium_channel"
/protein_id="AAG31731.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
| mol_type="mRNA"
| db_xref="taxon:9606"
| chromosome="11"
| map="11q13.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="brain"
1. .1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="synonym:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:11139499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361. .1542
/gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and Gloger, I.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AF248242
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF248242
AF248242.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11042359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20499203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cds
                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                          1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AF248242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                            셤
                                                                                                                                ठे
                                                                                                                                                                       셤
                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                            8
                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                    /proteIn_id="CAD10536.1"
/db_xref="G1:16605231"
/translation="MTAPQDEPPARPLQAGSGAGPAPGRAMRSTTLLALLALLILLLVLLYLV
SGALVFRALEQPHEGOAGRELGEVREKFLRAHPCVSDQBLGILIXEVADALGGGADPE
TNSTSNSSHSAWDLGSAFFFSGTIITTIGYGNVALRTDAGGRLFCIFYALVGIPLFGIL
                                                                                                                                LAGVGDRLGSSLRHGIGHIEAIFLKWHVPPELVRVLSAMLFLLIGCLLFVLTPTFVFC
YMEDWSKLAITYFVYTLTTVGFGDYVAGADPRQDSPAYQPLVWFWILLGLAYFASVL
TTIGNWLRVVSRTTRAEMGGLTAQAASWTGTVTARVTQRAGPAAPPPEKEQPLLPPPP
CPAQPLGRRRSSPSPERKAQPPSPPTASALDYPSENLAPIDESSDTQSERGCPLPRAPR
GRRRPNPPRKPVRPRGPGRPRDKGVPV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGGAGCAGGCCCAGAGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 PhelletysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGCCCCCACCCCAGGCACTCCCCGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspargleuGlySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGGCTGGGCTCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u> arcarcaccarcarcacraraeccaarerecccracecacagarecceecccrrrc</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                            1408
328
24
41
5
                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1-1408)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-655-272-2 (1-398) x AX278166
                                                                                                                                                                                                                                                                                                              1.73e-66
1692.50
88.44%
82.41%
                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         759
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                     ..
02
                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

Third

human,

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                               220
/db xref="G1:11139500"
/translation="MRSTTLLALLALVLYLYGALVFRALEQPHEQQAQRELGEVRE
/translation="MRSTTLLALLALVLYLYGALGAGNSHSAMDLGSAFFSGTIIT
KFLRAHPCYSOQEIGLILKEVADALGGGADPFTNSTSNSSHSAMDLGSAFFSGTIIT
IIGYGNVALRIDAGRLFCIFYALVGFPLFGFILLAGGDRLGSGIRHGIGHIRALFLKW
TIGYGNVALRIDAGRLFCIFYALVGFPLFFGFILLAGGDRLGSGIRHGIGHIRALFLKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CysllepheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuGlualaileTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cridaladeccarciacitricacana de de de contra contra de con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrp11e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaleuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhellelysLeuLeuValGluhlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                               1544
328
24
41
5
                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                (1-1544)
                                                                                                                                                                                                                                                                                                                                                                                                x AF248242
                                                                                                                                                                                                                                               1.9e-66
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                    Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                       Query Match:
DB:
                                                                                                                                                                                                                                                          ..
No
                                                                                                                                                                                                                                    Alignment
Pred. No.:
                                                                                                                                                                                          DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      장, 쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
/translation="mestatlallalvulvylosgaluveralbeopheogagrelgevre
kelrahecvesodelgilkevadalggadpernstsnsshsamdlgsaferesgtiit
rigyanvalradbageletifkevadalggadpernstsnsshsslandlgsaferesgtiit
rigyanvalradbageletiferluverleteitiferleteitifermen
ruppeluvrulsamletliggleturprycymenwilleresiferm
vagadpergödspanygeluwermilleranyrasviitignwirvusrrtraemgelifaqaa
swignytarvtoragagerekeopellepepcraopelgeresperaoperskappes
saldyrberniafidessbrogsergcplapapergrenen
va
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens two pore K+ channel KT4.1a mRNA, complete cds. AR259500.1 GI:13925514
                                                                                                                                                                                                                                                                                    1425
                                                                                                                                                         1305
                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human
tissue
                                                                                                                                                                                                                                                    AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                    GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgAroBenProSerLy8
                                                                                                                                                                                                                                                                                                                                      1426 GAGCGCGGCTGCCCCGCGCGCGCGCGCGCCCCCCAAATCCCCCCAGG
                                                                            ArgproGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                       New York
York, NY
ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                  GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLyS
                                                                                                                         GluGlnProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                       LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlavalProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Manualia: Butheria; Chordata; Craniata; Vertebrata; Eutele Mataroa; Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1730)
Cozaita,A. and Vega-Senz de Miera,E. Cloning of two transcripts, HKT4.1a and HKT4.1b, from the Lwo-pore K+ channel gene KCNK4. Chromosomal localization, distribution and functional expression and functional expression 2 (bases 1 to 1730)
2 (bases 1 to 1730)
Cozaita,A. and Vega-Saenz de Miera,E.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRAAK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (21-APR-2000) Physiology and Neuroscience, University School of Medicine, 550 First Avenue, New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            codon_start=1
/product="two pore K+ channel KT4.1a"
/protein_id="AAK49389.1"
/db_xref="GI:13925515"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="leak channel; similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. 1730
/organism="Homo sapiens
/mol type="mRNA"
/db_xref="taxon:9606"
/chromosome="11"
/map="11q13"
242. 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                   GAGCAGCCACTG
                                                                                                                                                                                               321
                                                                                                                                                                                                                                                              341
                                                                                                                                                                                                                                                                                              1366 (
                                                                                                                                                                                                                                                                                                                                                                                          381
                                                                                                                                                                                                                               1306
                                      1138
                                                                                                     1198
                                                                                                                                                                   1258
                                                                                                                                                                                                                                                                                                                            361
                                                                       281
                                                                                                                                   301
         261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF259500
                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                               g
                                                                                                                                                                                               à
                                                                       ò
                                                                                                   셤
                                                                                                                                   ò
```

```
51. .1310
/note="similar to mouse TRAAK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .2747
/organism="Homo sapiens"
/mol_type="maxna"
/db_xref="taxon:9606"
/chzomosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-655-272-2 (1-398) x AF259501 (1-2747)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                    AF259501.1 GI:13925517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.38e-66
1692.50
88.44%
82.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ozaita, A. and Vega
Direct Submission
1139 GAGCAGCCACTG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                361
                                  321
                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                           RESULT 12
AF259501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                            q
                                                                                                                                     셤
                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                       셤
                                                                                         8
                                                                                                                                                                              ò
                                                                                                                                                                                                                                                   ò
                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGGCGCGGACCCCCAGGCAGGACTCCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProFroGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluGinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG 718
                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                         81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACGTGGGCTTTGGCGACTATGTG 898
                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                               AspargLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rescacereccacesaceraciaadaerecrerecesacerrirecrecrerearese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuGluhlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTCCCGCCGCACTCGGGCAGAGATGGCGCCCTCACGGCTCCAGGCTGCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                              41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                    61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recerecircirrerecence de contra de la recenera del recenera del recenera de la recenera del la recenera de la re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                1730
328
24
41
5
                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                           Gaps:
                                                                                                                                                             x AF259500 (1-1730)
                              2.13e-66
1692.50
88.44%
82.41%
                                                                                                                                                             US-09-655-272-2 (1-398)
                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                   Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1079
                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                            302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                  ..
No
                 Alignment
                                                     Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
```

```
/codon_start=1
/product="two pore K+ channel KT4.1b"
/product="two pore K+ channel KT4.1b"
/protein_id="paAk4939.1"
/db xref="di.i.3925518"
/translation="MTTAPQEPPARPLQAGSGAGPAPGRAMRSTTLLALLALVLYLVLYLV SGALVFRALEQPHEDQAQRELGEWERKELARHEVSDAGELGLIFKSADALGGGADPE TNSTSNSSHSAMDLGSAFPEGTIITTIGYGNVALRTDAGELECIFYALUGIPLEGIL LAGVGDRLGSSLRHGIGHIEAIFLKMHVPPELVRVLSAMLFILIGCLLFVLTPTFVFC YNEDWSKLEAIFYVTUTTYGFGDYVAGADPRQDSPAYQELVWFWILLIGAAYFASVL TITGNWLRVVSRRTRAEMGGLTAQAASWTGTVTARVQRAGPAPPPEKEQPLIPPPP CPAQPLGRPRSPSFPRASALDYPSENLAFIDESSDTQSERGCPLPPPP GRACHERPVRPRGFGPRPRAFA
                                                                                                        1246
                                                                                                                                                                                                                                                                                                                                     1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF259501 2747 bp mRNA linear PRI 14-JUN-2002
Homo sapiens two pore K+ channel KT4.1b mRNA, complete cds.
AF259501
                                                                                                                                                                                            1247 GCCCTGGATTATCCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1306
                                                                                                                                                                                                                                                                           GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                               341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 2147)

Cazita,A. and Vega-Saenz de Miera,E.
Cloning of two transcripts, HKT4.1a and HKT4.1b, from the human two-pore K+ channel gene KCNK4. Chromosomal localization, tissue distribution and functional expression

2 (bases 1 to 2747)

2 (bases 1 to 2747)

2 (bases 1 to 2747)
                                                                                    1307 GAGCGCGCTGCCCGCTGCCCCGCGCCGAGAGGTCGCCGCCCCCAAATCCCCCCAGG
--CTGCCTCCACGCCCTGTCCAGCGCAGCCGCTGGGC
                                                    ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New York
York, NY
                                                                                                                                                                                                                                                                                                                                                                                                                                                1420
                                                                                                                                                                                                                                                                                                                                                                                   Submitted (21-APR-2000) Physiology and Neuroscience, University School of Medicine, 550 First Avenue, New 10016, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2747
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
```

```
'gene="KCNK4"
                                                                                                                                                                                                                                                                                                                            /gene="KCNK4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.41e-66
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                        'sex="male"
                                                                                                                                                                                (bases 1 to 2772)
                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                      .1323
                                                                                                                      Homo sapiens
                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                    Gray, A.T
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ч
                      381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.:
                                                                         DEFINITION
                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                       ORGANISM
                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                TITLE
                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                        gene
                                                   RESULT 13
AF247042
                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                      FATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
    셤
                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1133
                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGinProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321 ArgproGlySerProAlaProAlaGluLy8ValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                   LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                           ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                                                                                                          GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
                                                                                                                                                                                                                                                                           CysleuleuphevalleuThrProThrPhevalPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                          725
                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                      845
                                                                                                                                                                                                               AspargLeuglySerSerLeuArgArgGly1leGlyHislleGluAla11ePheLeuLys 160
                                                                                                                                                                                                                                             TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly 180
                                                                                                                                                                                                                                                             665
                                                                                                                                                                                  CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                 545
                                                                                                                                                                                                                               605
                188
                                             248
                                                                      AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                      425
                                                                                                                                                    ileileThrihrileGlyTyrGlyAsnileValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                             09
                                                                                          80
                               40
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                    -----chéchecacécerereageageageageage
                                                                                                                                                                                           LeuGluhlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
AlaLeuValPheGlnAlaLeuGluGlnBroHisGluGlnGlnAlaGlnLysLysMetAsp
                                      61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                               41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1026 caccaccacre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                           726
                                                                                                                                                                                                                                                                                                                                                         786
                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                       846
                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                    906
                                                                                                                                                                                                                                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                                            201
                                                                                                           309
                                                                                                                                                                                                                                  546
                                                                                                                                                                                                                                                 161
                  129
                                 21
                                                 189
                                                                              249
                                                                                                                                        369
                                                                                                                                                        101
                                                                                                                                                                       426
                                                                                                                                                                                      121
                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                               181
                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                   9 do do
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                         à
                                                                                                       음 상 음
                                             a
                                                              8 8 8
                원
    ò
                                 ð
```

```
mRNA linear PRI 16-APR-2000 potassium channel TRAAK (KCNK4)
                                 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetArgSerThrThr1euLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly-20
                                                                                                                                                                                                                                                                                                                                                                       tο
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gray, A.T.
Direct Submission
Submitted (21-MAR-2000) Anesthesia, Room S 261, UC San Francisco, Submitted (21-MAR-2000) Anesthesia, Room S 261, UC San Francisco, 513 Parnassus Avenue, San Francisco, CA 94143-0542, USA Location/Qualifiers
                                                                                                                                                                                                                                                                                                       Euteleostomi;
potassium channel TRAAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="tandem pore domain potassium channel TRAAK"
/protein.id="AAR64062.1"
/db_xref="GI:7576935"
                   1194 GAGCGCGGCTGCCCCGCCGCGCGCGCGAAGTCGCCGCCCCAAATCCCCCCAGG
                                                                                    Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="TWIK-related arachidonic acid-stimulated lchannel; potassium channel subfamily K member 4" /codon_start=1
                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butelé
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2772)
                                                                  LysproSerargproargGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2772
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dev_stage="5 months post-conception".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                          human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="frontal lobe"
/clone_lib="Schneider 00004"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .2772
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                        Assignment of KCNK4 encoding the chromosome 11
                                                                                                                                                                   AF247042 2772 bp Homo sapiens tandem pore domain | MRNA, complete cds. AF247042 AF247042.1 GI:7576934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-655-272-2 (1-398) x AF247042 (1-2772)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chromosome="11"
clone="IMAGE:2517763"
          361
```

ò

```
HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                           PAT 17-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1966 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysLeuLeuPheValLeuThrProThrPheValPheSerTytMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141 AspargleuGlySerSerLeuArgargGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly
            linear
                                                                                                                                                                                                                                                                                                                                                  3996
327
24
41
5
                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                              Unhander of the control of the contr
                                                                                           6 bp D
6569662.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-3996)
                                                                                           3996
US 6
                                                                                                         patent
                                                                                         AR338704
Sequence 195 from patent
AR338704
AR338704.1 GI:33725561
                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-655-272-2 (1-398) x AR338704
                                                                                                                                                                                                                                                                                                                                               7.38e-66
1688.50
88.41
82.37
81.22
                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                    .
Unknown.
                                                                                                                                                                                                                                                                                                                                         Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1789 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                          Best Local Sin
Query Match:
DB:
                                                                                                     DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                        Alignment S
Pred. No.:
                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                    REFERENCE
                                                               RESULT 14
AR338704
LOCUS
                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                   Score:
                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
               ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340
                                                                                                                                                                                       100
                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                               618
                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                   678
                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          978
                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                     498
 201
                                                     261
                                                                                                       321
                                                                                                                                                           381
                                                                              9
                                                                                                                                  80
                                                                                                                                                                                                                                                                                               CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                      AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                                                                                                                                                          AspargLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProFroGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGGAGCAGGCCCAGAGGGAGCTGGGG
                                                                                            PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                     CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluGlnBroLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
ATGCGCAGCACCACGCTCCTGGCCTGCTGGCTGTTTGCTTTACTTGGTGTCTGGT
                                                                              HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                          TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                         AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1147
                          21
                                                   202
                                                                              41
                                                                                                       262
                                                                                                                                  61
                                                                                                                                                             322
                                                                                                                                                                                                                 382
                                                                                                                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                                                                              559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             979
                                                                                                                                                                                      81
                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                     439
                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                   619
                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                           g
                                                                                                8 6 8
                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                    ठे
                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ያ ያ
```

ઠ

8

8

ઠે

1965

100

1908

80

2025

120

2145

2205

200

ò

180

2085

140

```
Direct Submission

AL Submitted (18-1078-2003) Whitehead Institute/MIT Center for Genome Rebarch, 320 Charles Street, Cambridge, MA 02141, USA

Research, 320 Charles Street, Cambridge, MA 02141, USA

4 (bases 1 to 18148)

Bairren, B. Nusbaum, C. Lander, E., Abouelleil, A., Allen, N., Anderson, M., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Anderson, M., Arachchi, H.M., Cooke, P., Corum, B., DeArellano, K., Cook, M., Cooke, P., Corum, B., DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorits, L., Brickson, J., Faro, S., Frizderald, M., Gage, D., Galagan, J., Gardyna, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Frizderald, M., Gage, D., Galagan, D., Hagos, B., Hall, J., Horton, L., Hulme, W., Iller, Y., Johnson, R., Jones, C., Halle, W., Liu, X., Lui, A., Mabbitt, R., Maclean, C., Lindblad Toh, K., Liu, X., Lui, A., Mabbitt, R., Maclean, C., Maclonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Madowa, C., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P., Najor, J., Peterson, K., Phunkhang, P., Pierre, N., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Spencer, B., Schupback, R., Seaman, S., Schubbs, M., Spencer, B., Stange-Thomann, V., Topham, K., Travers, M., Waman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Wyman, D., Young, G., Zainoun, V.S., Viel, R., Vol. Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct, Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (26-UUL-2003) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
Research, 320 Charles Street, Cambridge, MA 02141, USA
Fesearch, 320 Charles Street, Lander, M. Bastien, V. Allen, N.,
Signia, M., Arachchi, H.M., Barna, M., Bastien, V., Bloom, T.,
Anderson, M., Arachchi, H.M., Barna, M., Bastien, V., Boom, T.,
Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y.,
Boguslavkiy, L., Boukhgalter, B., Cornis, B., Dearellano, K.,
Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Erickson, J., Faro, S.,
Ferreira, P., FitzGerald, M., Hafez, M., Hagopian, D., Hagos, B.,
Graham, L., Grand-Pierre, M., Hafez, M., Hagopian, D., Hagos, B.,
Graham, J., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C.,
Lindblad-Toh, K., Liu, G., Lui, X., Mabbitt, R., MacLen, C.,
Madorald, Manning, J., Matthews, C., McCarthy, M.,
Maldrim, J., Major, J., Manning, J., Matthews, C., McCarthy, M.,
Nguyen, C., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P.,
Nyuyen, C., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P.,
Nyuyen, C., Nicol, W., Phunkhang, P., Pierre, N.,
                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission

AL Submitted (10-MAY-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

Research, 320 Charles Street, Cambridge, MA 02141, USA

Research, S. Nubaum, C. Lander, E. Abouelleil, A. Allen, N., Arachchi, H. M., Barna, N., Bastien, V., Bloom, T., Anderson, M., Arachchi, H. M., Cook, P., Camarata, J., Chang, J., Choepel, Y., Bouslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Erickson, J., Faro, S., Diaz, J.S., Dodge, S., Marellano, K., Grand-Pierre, N., Hafez, N., Hagoplan, D., Hagoplan, D., Hagoplan, D., Hagoplan, D., Hadoplan, C., Enderes, M., Karatas, A., Kalls, C., Landeres, T., Levine, R., Liu, X., Lul, A., Mabbitt, R., Maclean, C., Lindblad-Toh, K., Liu, X., Lul, A., Mabbitt, R., Maclean, C., Macdonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Nguyen, C., Nicol, R., Norbu, T., Mhowa, T., Menes, V., Whyphy, T., Naylor, J., Schuuer, S., Schubba, K., Rase, C., Rogov, P., Radland, J., Schuuer, S., Schubba, K., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Talavers, M., Vorman, J., Vorman, J., Vorman, J., Schuuer, S., Theodore, J., Topham, K., Talavers, M., Vorman, J., Schuuer, S., Theodore, J., Topham, K., Talavers, M., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Suhmitted (18-mm-10-1) Ruhmitted (18-mm-10-1)
Roman, J., Rostta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N. Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Tavis, N., Trigillo, J., Vassiltev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus much discussions in the control of the control 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ROD 01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2674 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGGTCCTCGGATACGCAGAGC 2733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2734 GAGCGCGGCTGCCCCCGCGCGCGAAGGTCGCCGCCCCAAATCCCCCCAGG 2793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2446 GIGICCCGCCGCCGCACTCGGGCAGAGATGGGCGCCTCACGGCTGCCAGCTGCGACT 2505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 gluargdlyCypalaLeuProargalaProargGlyArgargArgProasnProSerLyB 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgproGlyserProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (house mouse)
Mus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Mutazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 18148)
Birren, B., Nusbaum, C. and Lander, E.
Mus musculus chromosome 19, clone RP24-493E6
                                                                                                                 2206 IGCCIGCICITIGICCICACGCCCACGIICGIGIICCIGCIAIAIGGAGGACIGGAGCAAG 2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGlulys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 GluGlnProleguLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                          221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC120557
Mus musculus chromosome 19, clone RP24-493E6, complete sequence.
AC120557
                                                                                                                                                                                                                                                    leuPheGlyLeuAlaTyrPheAlaSerValLeuThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                  LeuGluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2794 AAGCCGTGCGGCCCCGGGCGCCCCGGGGGTCCCCGAAGGCGTGCCG 2844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381 LysproserArgProArgGlyProGlyArgLeuArgAspLysAlaValPro 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:33285102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC120557.11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
AC120557
```

유

ò

g

ò

ð

용

à

g ò 셤

ò

ò 셤 ò 엄 ò g à

repeat_region /rpt_family="polypyrimidine" repeat_region /rpt_family="polypyrimidine" repeat_region /rpt_family="lt." repeat_region /rpt_family="lt." repeat_region /rpt_family="Bl.MM" repeat_region /rpt_family="Bl.MM" repeat_region /rpt_family="lt." /rpt_family="lt."	repeat_region 53497 .5541 ignment Scores:	62 IleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsn 81 82922 CTGCAGCTCCTGGTAGAGCCCTGGGGGGGCGCGAACCCGGGAACCGCTGGACCAGT 82 SerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThrIle 10 82982 AGCAGCACCACCATGGACTGGACTGGCGCCTTCTTTTTTCTCGGGGCCATC 83 102 IleThrThrIle	Qy 105	83342 GGTGAGCTGCACCCCTCACAGGGTCTTCCTTCCCTAGGTCCTGGCAAGTGATGT 159
Rachupka, A., Roman, J., Spencer, S. Spencer, J., Wyman, D., Conter, Center, Ce		comple /rpt f /rpt f	repeat_region /rpt_family="AT_rich" repeat_region /rpt_family="AT_rich" repeat_region /rpt_family="B1_MM" repeat_region /rpt_family="B2_MM" repeat_region complement(11461431) /rpt_family="B4A" repeat_region complement(1524. 1894) /rpt_family="B4A" repeat_region /rpt_family="B2_MM" repeat_region /rpt_family="B2_MM" repeat_region /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM" /rpt_family="B2_MM2" /rpt_family="B2_MM2"	/rpt family="B3" complement (3008. /rpt family="B2 M complement (3199] /rpt family="B3" complement (3279. /rpt family="B3" /rpt family="B3" /rpt family="B3"

8 8 8 8 4 4 4 4 4		Oy 269 etGlyGlyLeuThralaGlnAlaAlaSerTrpThrGlyThrValThrAlaArgValThrG 289	Oy 329 lulysValGluThrProSerProProThrAlaSerAlaLeuAspTyrProSerGluAsnL 349	Search completed: February 3, 2005, 01:34:16 Job time : 5662.24 secs	
B33462 AGAGGGGTGAGAATGGAATTGTAGGTTACTGGCATCTCAATGGCTCTATCTCCCACCC 83521	216 eGlyAspTyrValPro	Db 83822 TACTTCTTCTAGCAGGCACCCTGATGCCCACTTACATCTTGCATGCA	222	Db 84302 TGTGTTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	Db 84422 TCAGGTTTGTCAGAGACTCAACCACCTCGTTCTTCGTGGATAGATA

Adk52549 Hematolog Adh51638 Human 123 Adi27935 Human TWI Adh51640 Human 123 Aah99921 Nucleotid

score:

Perfect

Sequence:

OM protein

Run on:

Scoring table:

Searched:

```
Adh51638 Human 123
Ad527935 Human TWI
Ad58498 Human PWI
Ad284959 Human G p
Ad80852 Human G p
Ad80852 Human G p
Ad408525 DNA encod
Abx91949 Human G p
Adb48285 Novel hum
Ad17854 Human TWI
Ad44451 Human TRE
Ad44451 Human TRE
Ad44551 Human TRE
Ad44551 Human TWI
Ad44551 Human NOV
Abx65909 Human NOV
Abx65909 Human NOV
Adn62909 Human ODN
Ada11550 Human Dol
Ada11550 Human GPC
Ad211550 Human TRE
Ad200039 h-TREK1 p
Ad200039 h-TREK1 p
Ad41067 Human GPC
Ad411915 Human GPC
Ad411915 Human Dot
Ad44676 Human pot
Ad44676 Human pot
Ad44676 Human pot
Ad411918 Human pot
Ad411918 Human pot
Ad411918 Human pot
Ad411918 Human pot
Ad4111918 Human pot
Ad411181 Human pot
Ad411181 Human pot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA encoding a mechanically sensitive potassium channel protein TRAAK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mechanically sensitive potassium channel protein; TRAAK; polyunsaturated fatty acid; arachidonic acid; riluzole; heart disease; nervous system disease; epilepsy; cardiovascular disease; arrhythmia; neurodegeneration; ischemia; anoxia; hormone secretion abnormality; muscular disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALIGNMENTS
                                                             ADI27935
AAD58498
                                                                                              ADP21365
ABX91950
                                                                                                                                                                                                                                                                                                                                    ADA05745
ADN62909
ABK49585
                                                                                                                                                                                                                                                                                                                                                                                                     ADM44068
AAZ00040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADP03564
AAZ11915
                                                 ADH51638
                                                                                                                              AAS08652
ADQ98525
                                                                                                                                                                                                                                                                          AAD34451
ABK27503
ABN85879
                                                                                                                                                                                                                                                                                                                         ADE07404
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD17497
AAD17496
AAZ00039
AAC90412
AAZ10607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS12169
AAS12181
AAS12182
AAS12183
                                                                                                                                                                                                            AAH78646
                                                                                                                                                                                                                                                         AAD27459
                                                                                                                                                                                                                                                                                                                                                                                        AB211550
                                                                                                                                                                                             AAS11984
                                                                                                                                                                                                                          ABA09473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAL44676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 284. .1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAZ10606 standard; cDNA; 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-FR000404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98FR-00002725
                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
   /*tag=
   23-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9945108-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-SEP-1999
1692.5
1692.5
1692.5
1692.5
1692.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1688.5
1689.5
1688.5
1688.5
1688.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
1689.5
16
                                                                                                                                                                                                                                          895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ10606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
AAZ10606
   Command line parameters:
-MODBL=frame+ p2n.model -DEV=xlh
-MODBL=frame+ p2n.model -DEV=xlh
-MODBL=frame+ p2n.model -DEV=xlh
-DS=0/GPG02_1/USFPO spool/US09655272/runat_0202005_141714_6735/app_query.fasta_1.1102
-DS=N_Geneseq_23Sep04_-QFMT=fastap_-SUFFIX=ng_-MINMATCH=0.1_LOOPCL=0
-LOOPEXT=0 -UMITS=bits -START=1 -END=-1_MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODBELOCAL.OUTFMT=pto -NOFM=ext -HRAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US09655272_@CGN 1 1 586_@runat_02022005_141714_6735_NCPU=6 -ICFU=3
-NO MAAP -LARGEQUERY -NGG SCORES=0 -WAIT -DSPEDACK=100 -LONGLOG
-DBV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5_FGAPOP=6
-FGAPOR=17 -YGAPOP=10 -YGAPEXT=0.5_DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aaa27105 Human h-T
Aah78636 Human mec
Aaa27106 Human h-T
Aah9922 Nucleotid
Adi27937 Human TWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aaz10606 cDNA enco
Aaa27105 Human h-T
Aah78636 Human mec
                                                                                                            ; Search time 609.438 Seconds (without alignments) 3428.193 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                           MRSTTLLALLALVLLYLVSG......SKKPSRPRGPGRLRDKAVPV 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                  GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                               nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                        4134886 segs, 2624710521 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                             2, 2005, 20:13:51
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ10606
AAAZ7105
AAH78636
AAAZ7106
AAA27106
AAH99922
ADI27937
                                                                                                                                                                                                                                                         ), Xgapext
), Ygapext
), Fgapext
), Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2003cs:*
geneseqn2003ds:*
geneseqn2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqn2002bs:*
geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqn2001as:*geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Geneseq_23Sep04:*
geneseqn1980s:*
geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                              US-09-655-272-2
                                                                                                                                                                                                                                                        Xgapop 10.0 , )
Ygapop 10.0 , )
Fgapop 6.0 , I
Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1182
1182
1218
1257
1257
                                 Copyright
                                                                                                               February
                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0
```

z

Database

2079 1692.5 1692.5 1692.5 1692.5 1692.5

450

Score

Result õ

```
1003
                                                                                                                                                             1063
                                                                                                                                                                                                        1123
                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                              380
                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                               300
                                                                                           240
                      883
                                                                                                                                                                                                                                                                                                                        ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                  AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                              GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                                                                                                                                                                                                                                                                                                                                              ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTxpPheTrpIle
                                                                                                      GlyThrvalThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLy8
                                                                                                                                                                                                                                                                          GluGlnProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
             LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                       LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1424 AAGCCTTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTG 1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                           398
                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; h-TRAAK; potassium channel polypeptide;
2P domain potassium channel; neurodegenerative disease; stroke;
psychiatric disorder; neurological disorder; Gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "h-TRAAK protein #1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
1. .1182
/*tag= a
/product= "h-TRAAK pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human h-TRAAK cDNA sequence #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA27105 standard; cDNA; 1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98GB-00024048.
99GB-00023668.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-GB003634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200026253-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-NOV-1998;
07-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                         261
                                                                                                                                                                                                              1064
                                                                                                                                                                                                                                                                                                                                                  1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA27105;
                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                     944
                                                                                                                                            241
                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                301
                                                   201
                                                                                                221
       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                               g
                                                                                                                                                              a
                                                                                                                                                                                ò
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                           8
                                                à
                                                                      g
                                                                                                                                           ò
                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                      New mechanically sensitive potassium channel, used to screen for specific modulators, potential therapeutic agents for heart and nervous system
                                                                                                                                                    The present sequence encodes a mechanically sensitive potassium channel protein designated TRAAK. The protein is activated by polyunsaturated fatty acids, particularly arachidonic acid, and by riluzole. The protein is used to screen for specific modulators which are useful for treating or preventing diseases of the heart and nervous systems in humans and animals, e.g. epliepsy, cardiovascular disease (arrhythmia), neurodegeneration (particularly where associated with ischemia or anoxia), abnormalities of hormone secretion and muscular disease. The protein iscalf may be used to treat these diseases. Antibodies specific for the protein are used to detect it in tissues, also as therapeutic inhibitors or activators
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PhellelysLeuleuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr 80
                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspargieuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               644 idrarchichardchachdeanaccachgrucagargcraccagagraga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1794 BP; 348 A; 574 C; 494 G; 378 T; 0 U; 0 Other;
                                124
                                                                                                                                                                                                                                                                                                                               1794
398
0
0
0
                                Duprat
                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                Œ,
                                  Lesage
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-2 (1-398) x AAZ10606 (1-1794)
                                 Lazdunski M,
                                                                                                                                                                                                                                                                                                                                  3.48e-105
2079.00
100.00%
100.00%
100.00%
                                                                                                                                    Claim 6; Fig 1; 40pp; French
            NAT RECH
                                                       WPI; 1999-551038/46.
P-PSDB; AAY30647.
                                  Fink M,
                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
            CENT
             CNRS
                                                                                                                                                                                                                                                                                                                         Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  704
                                                                                                                  disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                  ŭ
                                                                                                                                                                                                                                                                                                                                                                                                                                      ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
             (CNRS )
                                    Honore
                                                                                                                                                                                                                                                                                                                         Alignment Pred. No.:
                                                                                                                                                                                                                                                                                                                                                Score:
```

g ò 셤 ò පු ò g ò g

à

8 8

ద

ð

ò

220 657 240 717 260 777 280 837 300 897 320

597

```
946 AGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGCCCTCG 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                          LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                      538 IGCCIGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGGCAAG
                                                                                                     LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                          CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGCGCGACTATGTG
                                                                                                                                                                       221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                           GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                             crecresecraserraciresecreserecreaceaecaresesareresera
                                                                                                                                                                                                                                                                                                             ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                               grercceccecacrescassarcsececcreacecrescecrescerescre
                                                                                                                                                                                                                                                                                                                                                                                    GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      478 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                  CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "mechanically sensitive potassium channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disease; epilepsy; cardiac arrhythmia; neurodegeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, mechanically sensitive potassium channel, riluzole, TWICK, polyunsaturated fatty acid; arachidonic acid; hTRAAK, chromosome meuronal excitation; muscle excitation; cardiac rhythm; anoxia; hormone secretion; cardiac disease; vascular disease; ischemia; nervous system disorder; endocrinal disease; muscle disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human mechanically sensitive potassium channel hTRAAK cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
1. .1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAH78636 standard; cDNA; 1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .1182
/*tag= a
/product= '
hTRAAK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          898 GAGCAGCCACTG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200168670-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-DEC-2001
                                                                                                                                       598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                     201
                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                             718
                                                                                                                                                                                                                                                                                                                 261
                                  181
                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nervous
retinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                  셤
                                                                                                                                                                       ઠે
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                         polynucleotides from human tissue samples. h-TRPAK polypeptides have homology to the 2P domain potassium channel family of polypeptides. The h-TRAAK polypeptides and polynucleotides may be used in diagnostic assays for conditions related to h-TRAAK imbalance and for identifying agonists and antagonists of h-TRAAK polypeptides. The h-TRAAK polypeptides and polynucleotides may also be useful for treatment and prevention (e.g. as yaccines) of certain diseases, such as pain, psychiatric disorders including depression and schizophrenia, neurodegenerative disease including Alzheimer's, stroke and head trauma and neurological disorders including migraine and epilepsy. The present sequence is human h-TRAAK-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspàrgLeuGlySerSerLeuArgArgGlyIleGlyHislleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly 180
                                                                                                                                         potassium channel treatment of h-TRAAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and h-TRAAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           recarciiniarececreeregegariiceecieriineeareciacieecaeeeereee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCGCAGCACCACACCCTCCTGCTGGCCCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                            genomics was used to identify h-TRAAK polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1182
328
24
41
5
                                                                                                                                   Novel isolated h-TRAAK polypeptides belonging to the family of polypeptides, useful for the diagnosis and related disorders, e.g. depression and schizophrenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180 A; 408 C; 377 G; 217 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-1182)
                                                                                                                                                                                                            5; Page 21; 35pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    x AAA27105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.44e-84
1692.50
88.44%
82.41%
                                                  CG, Duckworth
                                                                                    2000-365583/31
                  SMITHKLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1182 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                                     P-PSDB; AAY94425
                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                    Chapman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                          Claim
```

<u>ک</u> ۾

유

a

ò

요

ઠ ద ठे

ò

셤

ઠે

셤

ò

ઠે

1065

360

340

```
361 GluArgGlyCysAlaLeubroArgAlaProArgGlyArgArgProAsnProSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1066 GAGCGCGGCTGCCCCGCGCCGACGCCGCCGCCCCCAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1006 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                                                                             GlyThrvalThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLy8
                                                                                                                                                                                                                                                                                                                                                                                    GluginProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                         321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                           LeupheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                      ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                  221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
AsphrgLeuGlySerSerLeuArgArgGly11eGlyHis1leGluAlailePheLeuLys
                TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                     CysteuLeuPhevalLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                    LeuGluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                    crasadeccarcratrarcaradreacecraecaccareacirireacacrara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; h-TRAAK; potassium channel polypeptide;
2P domain potassium channel; neurodegenerative disease; stroke;
psychiatric disorder; neurological disorder; Gene therapy; 88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "h-TRAAK protein #2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
37. .1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA27106 standard; cDNA; 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human h-TRAAK cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                             868
                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                558
                                                                                                                                                                                                                                                                           241
                                    418
                                                              161
                                                                                      478
                                                                                                                                         538
                                                                                                                                                                    201
                                                                                                                                                                                             598
            141
                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                             셤
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                         ò
                                                      ò
                                                                                   g
                                                                                                                  ò
                                                                                                                                      g
                                                                                                                                                                  Š
                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence encodes a human mechanically sensitive potassium channel which is activated by polyunsaturated fatty acids (particularly arachidonic acid (AA)) and by riluzole. The polypeptide is designated human TWICK-related AA-activated potassium channel (hTRAAK). The hTRAAK gene is located on chromosome 11q13. hTRAAK is involved in regulation of neuronal and muscle excitation, cardiac rhythm and secretion of hormones. Cells that express hTRAAK, designated to screen for modulators of hormones activity. Such modulators are potentially useful for prevention or treatment, in humans and animals, of: cardiac and/or vascular disease; nervous system disorders associated with ischemia and anoxia; endocrinal diseases associated with anomalous hormone secretion or muscle diseases; and retinal diseases. Typical examples are epilepsy, cardiac arrhythmia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41 HisGlyArgAspGlnPheleuArgAspHisProCysvalSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arcarcaccaccarcaccaratescaarerescccrececacaearecceeccicric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MethrgSerThrThrLeuleuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                   New mechanically sensitive potassium channel, useful for treating cardiovascular diseases and in drug screening, is activated by polyunsaturated fatty acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1182
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1182 BP; 180 A; 408 C; 377 G; 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-1182)
                                                                                                                                                                                                                                         Claim 4; Page 32-33; 37pp; French.
                                                                                                                          Maingret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-655-272-2 (1-398) x AAH78636
                                                                                               CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.44e-84
1692.50
88.44%
82.41%
81.41%
                                             14-MAR-2001; 2001WO-FR000758
                                                                      2000FR-00003264
                                                                                                                          Œ,
                                                                                                                                                                                                                                                                                                                                                                                                                                  neurodegeneration
                                                                                                                           Lesage
                                                                                                                                                  WPI; 2001-590037/66.
P-PSDB; AAG67777.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                        14-MAR-2000;
                                                                                               (CNRS ) CNRS
                                                                                                                           Lazdunski M,
                    20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
```

g ò

셤

ò

임 ò g ò 유 8 유 ð

ð

1125

1065

360

340

320

280

837

260 777

240

717

220 657

200

597

477 180 537 300

8XCCCCCCCCX8X474X6XX1X8XX1XX8XX6XX

```
1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GludrgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                     180
                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                             693
                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                         753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                               573
                                                                                                                                                                                                                                            633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             981
394 TGCATCTTTTATGCGCTGGTGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; potassium channel; transmembrane domain; TWIK; TWIK-8; Tandem of P domain in a Weak Inward rectifying K+ channel; K+; central nervous system disorder; cardiovascular disorder; potassium channel mediated disorder; Alzeimers disease; Parkinsons disease; multiple sclerosis; Picks disease; Parkinsons disease; mordegenerative disorder; Lewy diffuse body disease; senile dementia; Huntingtons disease; movement disorder; epilepsy; AIDS related dementia; Gilles de la Tourettes syndrome; amyotrophic lateral sclerosis; progressive supranuclear palsy; Jakob-Creutzfeldt disease;
                                                                                                                                                                                                                                                                                                                                                                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                 LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                          634 crecaeccarcracrrrercaracreacecrraccaccerececrrecearrarere
                                                                                                                                                                                                                                                                                                                                                                   221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplle
                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThr1leGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            754 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             814 GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            934 GAGCAGCCACTG------CTGCCTCCACCCCCTGTCCAGCGCAGCCGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321 ArgProGlySerProAlaProAlaGluLy8ValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1102 GAGCGCGCCTGCCCCCCCCCGCGCCGAGGTCGCCGCCGCCCAAATCCCCCAGG
                                                           ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                        AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                         TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162 AAGCCCGTGCGGCCCCGGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381 LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleotide sequence of human TWIK-8 receptor channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH99922 standard; cDNA; 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                454
                                                                                                                         191
                                          141
                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAH99922
IID AAH9
IXX AAH
AC AAH
XXX XXX
XXX BDT 25-
DDE NUC
XXX XXX HUM
KW TANN
KW TANN
KW POT
KW POT
KW HUN
KW POT
KW HUN
KW POT
KW HUN
KW POT
KW HUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                        ò
                                                                      ద
                                                                                                                     8
                                                                                                                                                         셤
                                                                                                                                                                                                     8
                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                             Functional genomics was used to identify h-TRAAK polypeptides and h-TRAAK polypuclectides from human tissue samples. h-TRAAK polypeptides have homology to the 2P domain potassium channel family of polypeptides have and polymucleotides may be used in diagnostic assays for conditions related to h-TRAAK imbalance and for identifying agonists and antagonists of h-TRAAK polypeptides. The h-TRAAK polypeptides and polymucleotides may also be useful for treatment and prevention (e.g. as vaccines) of certain diseases, such as pain, psychiatric disorders including depression and schizophremia, neurodegenerative disease including Alzheimer's, stroke and head trauma and neurological disorders including migraine and epilepsy. The present sequence is human h-TRAAK
                                                                                                                                                                                                                                                                                                                             potassium channel
treatment of h-TRAAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cys11ePheTyrAlaLeuValGly11eProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGTCCGAGAGAAGTTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IleIleThrThrileGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97 GCCTGGTGTTCCGGGCCCTGGAGCACCCCAGGAGCAGCAGCCAGAGGAGGAGCTGGGG 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlakeuValPheGlnAlakeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37 Arececaccaccacercerecerecreseresecristreserrinaerrasereres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 182 A; 421 C; 395 G; 220 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                          Novel isolated h-TRAAK polypeptides belonging to the family of polypeptides, useful for the diagnosis and related disorders, e.g. depression and schizophrenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indel8:
                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Page 21 and 22; 35pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               x AAA27106 (1-1218)
                                                                                                                                                                                  (SMIK ) SMITHKLINE BEECHAM PLC
                                                                                                                       98GB-00024048.
99GB-00023668.
                                                                                99WO-GB003634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.54e-84
1692.50
88.44%
82.41%
                                                                                                                                                                                                                             ž
                                                                                                                                                                                                                         Chapman CG, Duckworth
                                                                                                                                                                                                                                                                   WPI; 2000-365583/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                    P-PSDB; AAY94426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA sequence #2
  WO200026253-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1218
                                                                                03-NOV-1999;
                                                                                                                       03-NOV-1998;
                                                                                                                                              07-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
Pred. No.:
                                        11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query 1
DB:
```

g

ò g ò 셤 ð g

ઠ

원

ઠે

8

ठे

Thu Feb

/partial /note= "No stop codon"

Location/Qualifiers

1. .125/ /*tag= a /product=' .1257

```
Novel isolated 12303, a human tandem of P domains in a weak inward rectifying potassium channel-related potassium channel subunit polypeptide useful for treating Alzheimer's disease, restenosis, migraine
autonomic function disorder; neuropsychiatric disorder; phobia; bipolar affective disorder; ss; nootropic; neuroprotective; antiparkinsonian; antiarterioscierciric; cytostatic; hypotensive; antidepressant; antimigraine; analgesic; vasotropic; anticonvulsant; neuroprotective; tranquilizer; neuroleptic; cancer; learning and memory disorder; cell proliferation disorder.
                                                                                                                                                                                 06-APR-2001; 2001WO-US011301
                                                                                                                                                                                                    07-APR-2000; 2000US-0195734P
                                                                                                                                                                                                                      (MILL-) MILLENIUM PHARM INC
                                                                                                                                                                                                                                                        2002-010911/01.
                                                                                                                                                                                                                                                                  P-PSDB; AAG78406.
                                                                                                                                                WO200177329-A2
                                                                                                                                                                                                                                       Glucksmann MA;
                                                                   Ното варіеля
                                                                                                                                                                 18-OCT-2001
                                                                                                                                                                                                                                                                                                             cancer
                                                                                                                                                                                                                                                                                                             and
```

```
This invention relates to a human TWIK-8 (tandem of P domains in a weak inward rectifying K<sup>+</sup> channel) related potassium channel subunit conversely.

Comprehensive, antiparkinsonian, antiarteriosclerotic, cytostatic, hypotensive, antidepressant, antimigraine, analgesic, vasotropic, antidepressant, neuroprotective, tranquilizer, neuroleptic, in gene therapy, and as a modulator of potassium channel mediated activity in a cell, and is useful in screening assays, detection assays, predictive cell, and is useful in screening assays, detection assays, predictive carget for developing modulating agents to regulate a variety of cellular processes, and is also useful as query sequence to perform a search gainst public databases to, for example, identify other family members or related sequences. The polypeptide is useful for treating disorders characterized by insufficient or excessive production of TWIK-8 protein or production of TWIK-8 protein forms which have decreased, aberrant or unwanted activity compared to TWIK-8 wild type protein, e.g., potassium channel associated disorders including central nervous system disorders such as cognitive and neurodegenerative disorders, autonomic function and standard and provesses and is analyse more manner, alearning and an envaled envalers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disorders, learning or memory disorders, cardiac disorders, muscular disorders, pain disorders and disorders of cellular growth, differentiation or migration. The polypeptide is useful as immunogen raise anti-TWIR-8 antibodies, and to screen for drugs, and is also sequence represents the nucleotide sequence for human TWIR-8, which differs to the sequence in AAH99922 since it does not contain the 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence 1257 BP; 188 A; 443 C; 404 G; 222
Claim 1; Page 122-124; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 untranslated region
```

1257 328 24 41

Length:
Matches:
Conservative:
Mismatches:
Indels:

3.66e-84 1692.50 88.44% 82.41% 81.41%

Percent Similarity: Best Local Similarity: Query Match:

```
1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341 AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeubheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        975
                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              915
                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                              495
                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                       555
                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                                        675
                                                                                                                                                                                        100
                                                                                                                                                                                                                                 120
                                                                                                                                                           321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ...-----crecerceaccecerecaececaececaecececece
                                                                                                                                                                                                                                                                                                                  AspargleudlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlynhrvalthralaargvalthrGlnargthrGlyProSerAlaProProGluLys
                                                                        319 AGCAACAGCAC---TCAGCCTGGGACCTGGGACCAGCGCCTTCTTTTTCTCAGGGACC
                                                                                                                                                                                                                                                                         CysilePheTyrAlaLeuValGlylleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                CysteuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                   201 LeuGlualaileTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  676 CIGGAGGCCATCIACTITGICATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736 GCCGGCGGAACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly
                                                                                                                                                                                                                                                                                                                                                                        MetargserThrThrieuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                               21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                      HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                  61 PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                        AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                 11e11eThrThr11eGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
US-09-655-272-2 (1-398) x AAH99922 (1-1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCAGCCACTG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                             496
                                                                                                          41
                                                                                                                                                                                              81
                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                    436
                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                           ద
                                                                                                                                                ઠે
                                                                                                                                                                      ď
                                                                                                                                                                                            ઠે
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                à
                                                                                     qq
                                                                                                          ò
                        à
```

```
$$$$$$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9, alpha2delta-4, 54414, or 53763 nucleic acids and proteins, useful for preventing, diagnosing and treating e.g. cancers, Alzheimer's disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; TWIK-8; gene; ss; ion channel family; ICF; cancer; leukaemia;
Alzheimer's disease; Parkinson's disease; multiple sclerosis; epilepsy;
hepatic disorder; cardiovascular disorder; cytostatic; neuroprotective;
nootropic; antiparkinsonian; hepatotropic; cardiovascular.
                                                                 GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                        GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                            LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Curtis RAJ, Glucksmann MA, Silos-Santiago I;
                                                                                                                                                                                                                                                                                       ADI27937 standard; cDNA; 1257 BP
                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA coding region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0195993P.
2000US-0199799P.
2000US-0233537P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-SEP-2000; 2000US-0235018P.
25-SEP-2000; 2000US-0235059P.
15-DEC-2000; 2000US-0256240P.
18-DEC-2000; 2000US-0256588P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0185938P.
2000US-00518866.
2000US-0195734P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-DEC-2000; 2000US-0258028P-
28-FEB-2001; 2001US-00796720.
06-APR-2001; 2001US-00828035.
11-APR-2001; 2001US-00833081.
25-APR-2001; 2001US-00843128.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002US-00146733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-SEP-2001; 2001US-00957683
25-SEP-2001; 2001US-00964252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00964256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00024623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cardiovascular disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2004-069000/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; ADI27936.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003165891-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-APR-2000; 2
26-APR-2000; 2
19-SEP-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                     Human TWIK-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L7-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                           06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             preventing,
                                                                                                          1144
                                                                                                                                                                                               1204
                                                                                                                                                       381
                                                                                                                                                                                                                                                                                                                                ADI27937;
                                                                   361
                                                                                                                                                                                                                                                              AND COURT OF THE C
                                                                                                                                                                                                                                          RESULT
                                                                                                     음
                                                                                                                                                                                               셤
                                                                   ઠે
                                                                                                                                                       Ś
```

The invention relates to TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HWMDA-1, TWIK-9, alpha-2delta-4, 54414 and 53763 ion channel family (ICP) mucleic acids and proceins. The TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9, alpha-2delta-4, 54414 and

Claim 1; SEQ ID NO 30; 638pp; English

```
ct diagnosing and treating may be used for preventing, diagnosing and treating ICF-related diseases. The sequences may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of receive by expressing inactive proteins or to supplement the patients own production of ICF proteins. The proteins may also be used as antigens in the production of antibodies against ICF proteins and in anti-free protein antibodies and antagonists may be used to regulate ICF protein antibodies, agonists and antagonists may be used to regulate ICF protein activity. The anti-free ICF protein antibodies and activity. The anti-free ICF proteins in a samples (e.g. by immunoassay). The nucleic acids and proteins may be used to prevent, diagnose and treat a wide variety of disorders, e.g. cancers and leukaemia. Alzheimer's disease, Parkinson's disease, multiple collection. Note: The sequence data for this patent is also available in invention. Note: The sequence data for this patent is also available in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139 GCCCTGGTGTTCCGGGCCCCTGGAGCAGCCCCACGAGCAGCAGCCCAGAGCAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199 GAGGTCCGAGAGAGAGAGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376 ATCATCACCACCATCGGCTATGGCAATGTGGCCTGCGCACAGATGCCGGGCGCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         436 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuGluAla11eTyrPheVal11eValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCGCAGCACCACCCTCCTGGCTCGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       259 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAACCAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      496 GACCGGCTGGCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysleuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 PheilelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cys1lePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  electronic format from USPTO at segdata.uspto.gov/seguence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1257 BP; 188 A; 443 C; 404 G; 222 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1257
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           x ADI27937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.66e-84
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

g

à

g

ò

```
1084 eccercearrarceasceascascerescerrearceascascerescascerescentas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1144 GAGCGCCGCCTGCCCCCCCCCCCCCCCCGAGAGCTCGCCGCCGCCCAAATCCCCCCCAGG 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; vasotropic; haemostatic; nephrotropic; gastrointestinal-Gen; respiratory-Gen; muscular-Gen; osteopathic; antinflammatory; muscular-Gen; osteopathic; antinflammatory; antincide; analgesic; antinanemic; endocrine-Gen; neuroprotective; nootropic; cardiant; gene therapy; cellular proliferative; differentiative disorder; brain; blood vessel; platelet; breast; collon; kidney; lung; ovarian; prostate; pancreatic; skeletal muscle; testicular; hormonal; bone metabolism; immune disorder; inflammatory disorder; cardiovascular disorder; endochellal cell; liver; viral; pain; metabolic; anaemia; anglogenesic; encoplastic; endocrine disorder; neurological; heart; tissue typing; chromosomal mapping; predictive medicine; pharmacogenomic; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                   LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                             915
                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
676 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG 735
                                                                                                                                                                                                                                                                                                                           GTGTCCCGCCGCACTCGGGCAGAGATGGGCCGCCTCCACGGCTGCCAGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlabeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer
                                                           ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                        ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1204 AAGCCCGTGCCGCCCCGCGCGCCCCCGGCGTCCCCGACAAAGGCGTGCCGGTG 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human 12303 protein coding DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADH51640 standard; DNA; 1260 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2004
                                                                                                                                                                                                                               96/
                                                                                                                                                                                                                                                                                                                                                928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADH51640;
                                                           221
                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                           261
                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADH51640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
```

g

ò

ò 셤

g

ઠે

ò a 용

à

g

ò

셤

à

```
This invention relates to novel human DNA sequences (designated 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 599210 rail the proteins encoded by them. The invention may be useful for the development of compounds with a cytostatic, vasotropic, heamostatic, nephrotropic, gastrointestinal-Gen, respiratory-Gen, muscular-Gen, netropathic, antiinflammatory, antianaemic, endocrine-Gen, neuroportective, nootropic or cardiant activity. In addition, the sequences may be useful for gene therapy. The invention may be useful in diagnosing, preventing or treating disorders characterised by aberrant 18607, 15603, 69318, 12303, 48000, 52920, 5433, 5354, 57301, 58324, 55063, 52991, 59914, 59921 or 33751 activity, for example cellular proliferative and/or differentiative disorder, brain clasorder, brain disorder, platelet disorder, brain disorder, colon disorder, pancreatic disorder, genetate disorder, pancreatic disorder, disorder, ovarian disorder, certaticular disorder, hormonal disorder, disorder associated with bone cometabolism, immune disorder, inflammatory disorder, viral disease, pain, condition disorder, neurological disorder, or heart disorder, repensation conditions or pharmacoden disorder, condocrine disorder, neurological disorder or heart disorder. They may also be used in screening assays, tissue typing, chromosomal mapping, chromosomal mapping, the condition may assays, the pharmacoder associated with the function for the pharmacoder or heart disorder or heart disorder or heart or heart of the pharmacoder of the pharmacoder associated with the function of the function of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921 or 33751 nucleic acid molecule or polypeptide, useful for diagnosing, preventing or treating e.g. proliferative or brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the coding DNA sequence for the human 12303 protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Silos-Santiago I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1260 BP; 189 A; 443 C; 405 G; 223 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Galvin KM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lora JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 20; 276pp; English.
                                                                                                                                                                 2001US-00828035.
2001US-00891762.
2001US-00942447.
                                                                                           2001US-00789481.
2001US-0275078P.
                                                                                                                                          2001US-0275172P.
                                                                                                                                                                                                                                      2001US-0322983P.
2001US-00957683.
                                                                                                                                                                                                                                                                                                              2001US-0336936P
                                                                                                                                                                                                                                                                                        2001US-0325854P
                                                                                                                                                                                                                                                                                                                                                           002US-00094214
                                                                                                                                                                                                                                                                                                                                                                                      2002US-00095139
                                                                                                                                                                                                                                                                                                                                                                                                       2002US-00245121
2002US-00255532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                       002US-00062937
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002US-00309804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Curtis RAJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2004-010868/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; ADH51639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Glucksmann MA,
                                                                                                                    12-MAR-2001;
12-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2002;
                                                                                                                                                                                                                     29-AUG-2001;
                                                                                                                                                                                                                                         17-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2002;
                                                                                                20-FEB-2001;
                                                                                                                                                                                              26-JUN-2001;
                                                                                                                                                                                                                                                                                     27-SEP-2001;
                                               19-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disorders
```

x ADH51640 (1-1260) US-09-655-272-2 (1-398)

1260 328 24 41 5 Length: Matches: Conservative: Mismatches: Indels: Gaps: 1692.50 88.44% 82.41% 81.41% 3.67e-84 Percent Similarity: Best Local Similarity: Query Match: Pred. No.:

Alignment Scores:

MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly 20

ò

22-FEB-2000; 2000US-00510706. 07-AFR-2000; 2000US-0195734P. 1-MAY-2000; 2000US-00583373. 26-UUN-2000; 2000US-0214176P.

18-MAR-2003; 2003US-00391399

US2003219806-A1

27-NOV-2003.

Homo sapiens

ds; 12303.

```
1144 GAGGGGGGCTGCCCGCTGCCCCGCGCGCGGAGAGGTCGCCGCCGCCGCAAATCCCCCCCAGG 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Fig 1; 124pp; English.
                                                                                AAH99921 standard; cDNA; 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-APR-2000; 2000US-0195734P
                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-APR-2001; 2001WO-US011301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MILL-) MILLENIUM PHARM INC.
                                                                                                                        25-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-010911/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB; AAG78406.
                                                                                                                                                                                                                                                                                                                                                                                                          WO200177329-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glucksmann MA;
                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              18-OCT-2001
                    381
                                                                                                    AAH99921;
                                                                                  GAGCAGCCACTG------CTGCCTCCACCGCCCTGTCCAGCGCAGCCGCTGGGC 1023
                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                           375
                                                                                                                                                                                               120
                                                                                                                                                                                                          376 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACACATGCCGGGCGCCTCTTC 435
                                                                                                                                                                                                                                        140
                                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                     555
                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGCCCGCCGCCGCCGCCGCCGAAAA 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                          318
                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                              615
                                                                                                                                                                                                                                                                                                                                                                  CysleuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                      675
                                                                                                                                                                                                                                                                                                                                                                                                                              735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 855
                                                                      9
                                                                                                                                                                                                                                      199 GAGGICCGAGAGATCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                           259 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                            GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                    CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                      41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                AspargleuGlySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                           TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736 GCCGGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGTCCCGCCGCACACAGAGATGGGCCGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                              PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                      AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                     recerecretriferecreaceceaedricerericieerararaceaegaeregaedae
                                                                                                                                                                                                                                                                                                                                                                                                         LeuGluAlalleTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                            319
                                                                                                                                                                                                                                                                                                     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1084
                              21
                                                 139
                                                                                                               61
                                                                                                                                                       81
                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       341
                                                                                                                                                                                              101
                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                           191
                                                                                                                                                                                                                                                                                                                                             556
                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                             셤
                                                                ò
                                                                                      셤
                                                                                                                               g
                                                                                                                                                                        셤
                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ર્જ
                             ઠે
                                                                                                               ò
                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
This invention relates to a human TWIK-8 (tandem of P domains in a weak inward rectifying K<sup>+</sup> channel)-related potassium channel subunit polypeptide. Applications of the polypeptide include: mootropic, neuroprotective, antidarkinsonian, antiarteriosclerotic, cytostatic, hypotensive, antidepressant, antimigraine, analgesic, vasotropic, anticonvulsant, neuroprotective, tranquilizer, neuroleptic, in gene therapy, and as a modulator of potassium channel mediated activity in a cell, and is useful in screening assays, detection assays, predictive medicine and in methods of treatment. The polypeptide is useful as a target for developing modulating assays, sequence to parform as a processes, and is also useful as query sequence to perform a search against public databases to, for example, identify other family members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel isolated 12303, a human tandem of P domains in a weak inward rectifying potassium channel-related potassium channel subunit polypeptide useful for treating Alzheimer's disease, restenosis, migraine and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; potassium channel; transmembrane domain; TWIK; TWIK-8;

Tandem of P domain in a Weak Inward rectifying K+ channel; K+;
central nervous system disorder; cardiovascular disorder;
potassium channel mediated disorder; Alzeimers disease;
potassium channel mediated disorder; Alzeimers disease;

Parkinsons disease; multiple sclerosis; Picks disease;
M neurodegenerative disorder; Lewy diffuse body disease; senile dementia;
Hunningtons disease; movement disorder; epilepsy; ALDS related dementia;
M progressive supranuclear palsy; Jakob-Creutzfeldt disease;
autonomic function disorder; neuropsychiatric disorder; phobia;
M pipolar affective disorder; ss; nootropic; neuroprotective;
antidarkinsonian; antiatreriosclerotic; cytostatic; hypotensive;
antidarkensesant; antimigranie; analgesic; vasotropic; anticonvulsant;
m neuroprotective; tranquilizer; neuroleptic; cancer;
learning and memory disorder; cell proliferation disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             related dementia;
                                           1204 AAGCCCGTGCGGCCCCGGGGCCCCGGGGCGTCCCCGAGAAAAAAGCCGTGCCGGTG
LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleotide sequence of human TWIK-8 receptor channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product= "human TWIK-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
84. .1343
/*tag= a
```

```
LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
84. .1343
/*tag= a
                                                                                                                                                                                                                                                                                                                                                               ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002US-0354333P.
2002US-0364476F.
2002US-0364476F.
2002US-0386494P.
2002US-0399965F.
2002US-03939480P.
2002US-0394128P.
2002US-03937483P.
2002US-0407045P.
                                                                                                                                                                                                                                                                                                                                                              ADK52549 standard; DNA; 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003WO-US002484
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2003065871-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-FEB-2002;
28-FEB-2002;
15-MAR-2002;
26-APR-2002;
06-JUN-2002;
24-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-JUN-2002;
03-JUL-2002;
31-JUL-2002;
13-AUG-2002;
30-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-JAN-2003;
                                                                                                                                                                                                                                                                                                                                                                                                       06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-AUG-2003
                                                                                                                                                                                                                341
    241
                        879
                                             261
                                                               939
                                                                                                         999
                                                                                                                                                                       321
                                                                                                                                                                                                                                                          361
                                                                                     281
                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                            RESULT 9
                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                      g
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                               ò
                   Б
                                             8
                                                           g
                                                                                    8
                                                                                                       셤
                                                                                                                              ð
                                                                                                                                               셤
                                                                                                                                                                      ò
                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspargieuGlySerSerLeuargargGlyIleGlyHislleGlualallePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                   518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crecadescenteracitricaradascerraceacescerescentescentescentrated 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                   GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                llellethrThrlleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        recerecterrierecteaeeeeeaeerregieriereerarareeaeaeereeaeeae
                                                                                                                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                      9
or related sequences. The polypeptide is useful for treating disorders characterised by insufficient or excessive production of TWIR-8 protein or production of TWIR-8 protein forms which have decreased, aberrant or unwanted activity compared to TWIR-8 wild type protein, e.g., potassium channel associated disorders including central nervous system disorders such as cognitive and neurodegenerative disorders, autonomic function disorders, learning or memory disorders, cardiac disorders, muscular disorders, pain disorders and disorders of cellular growth, differentiation or migration. The polypeptide is useful as immunogen to raise anti-TWIR-8 antibodies, and to screen for drugs, and is also considered useful for producing non-human transgenic animals. This sequence represents the nucleotide sequence for human TWIR-8
                                                                                                                                                                                                                                                                                                                       AsnSerSerAanHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGluAla11eTyrPheVal11eValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                               41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                               PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                      MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                             AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                         U; 0 Other;
                                                                                                                                                                        1408
328
24
41
5
                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                         Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0
                                                                                                                                                                                                                                                 (1-1408)
                                                                                                                                                                                                                                                 US-09-655-272-2 (1-398) x AAH99921
                                                                                                                                                                        4.12e-84
1692.50
88.44%
82.41%
                                                                                                                                                                                                                  81.418
                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                gnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           669
                                                                                                                                                                                                                                                                                                                                                                                                                                                             102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    759
                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                             282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                    222
                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                     Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
      8X888888888888888888
                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                    ठ हे ठ
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                                                                                                                                                                                                                                                                                         8
```

```
1226
                                                                                                                                                                                                                                                                                              1106
                                                                                                                                                                                                                                                                                                                                                                                       1166
                                                                                                                                                                                                    1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cytostatic; antianemic; antisickling; virucide; hemostatic; nephrotropic; cytostatic; thrombolytic; antiparasitic; gene therapy; hematologic disorder; cancer; Sickle Cell Anemia; Infectious Mononucleosis; Leukemia; Polycythemia Vera; Lymphoma; Retinoblastowa; Hemophilia; Thrombosis; Herpes; Thalassemia; transfusion reaction; Erythroblastosis; mechanical trauma; micro-anglopathic hemolytic anemia; parasite infection; gene; ds.
                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               380
                                                                                                        966
                                                                                                                                                      300
                                                                                                                                                                                                                                               320
                                                                                                                                                                              GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                                                                                                                                                                                                                                                                                                       ArgproGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                    GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProFluLys
                                                                                                                                                                                                                                               GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                              AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1227 GAGCGCGGCTGCCCGCTGCCCCGCGCGCGAGAGGTCGCCGCCGCCGAAATCCCCCAGG
                                                            ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1287 AAGCCCGTGCGGCCCCCGGGCCCCCGGAGACAAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381 LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hematological disorder associated Gene ID 12303
```

```
셤
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                      ò
                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                     The invention relates to a method of identifying a compound capable of treating a hematologic disorder comprises assaying the ability of the compound to modulate 131,148, 199, 12303, 13906, 15513, 17822, 302, 5677, 194, 14393, 28059, 7366, 12212, 1981, 261, 12416, 270, 1410, 137, 1871, 13051, 1847, 1849, 15402, 340, 10217, 837, 1761, 8990 or 13249 mucleic acid expression or polypeptide activity, thus, identifying a compound capable of treating a hematologic disorder. The methods are useful in diagnosing, preventing and treating hematological disorders, such as annew, Sickle Cell Annemia, Infectious Monouncleosis, Leukemia, Polycythemia vera, Lymphoma, Retinoblastoma, Hemophilia, disorders associated with an increased risk of Thrombosis, Herpes, Thalassemia,
                                                                                                                                                                (e.g.
| to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antibody-mediated disorders such as transfusion reactions and Erythroblastosis, mechanical trauma to red blood cells such as micro-angiopathic hemolytic anemias, infections by parasites or chemical injuries. The methods may also be used for identifying compounds that modulate hematological disorders. This sequence corresponds to one of
                                                                                                                                                           Identifying a compound capable of treating a hematologic disorder (amenia or leukemia) comprises assaying the ability of the compound modulate the expression or activity of e.g. 131,148, 199 or 12303 polypeptide or nucleic acid.
                                                                        Ľ
                                                                   Kelly
                                                                                                                                                                                                                                                        Disclosure; SEQ ID NO 7; 232pp; English.
                                                                        Weich NS,
25-NOV-2002; 2002US-0429048P
                                    MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genes modulated the compound
                                                                    JM, Healy A,
                                                                                                         2003-731464/69
                                                                                                                            P-PSDB; ADK52550
                                                                      Carroll
```

Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;

```
100
                                                                                                                                                                                                                                                                                                                458
                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                            518
                                                                                                                                                                                                                                                                                                                                                                                                       578
                                                                                                                                                      CysllePheTyrAlaLeuValGlylleProLeuPheGlyMetLeuLeuLalaGlyValGly 140
                                                                                                                                 221
                                                                                                                                                                                                                       341
                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                  9
                                                                                                                                                                                                                                              80
                                                                                                           MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGJy
                                                                                                                                                                                                                282 GAGGTCCGAGAGAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                           342 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGTGCGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                                                                                                                                      PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                          AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                      IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                          Arcarcaccarcascrarascaarsrasccracascacasarsccassascrarac
                                                                                                                                                                                                                                                                                                                                                                                                      recarcititatececresceseariceecieritiesearceaecieeciese
                                                                                                                                                                                                  HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                               ::
          1408
328
24
41
5
         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                      x ADK52549 (1-1408)
         4.12e-84
1692.50
88.44%
82.41%
                                                                                      US-09-655-272-2 (1-398)
                                Percent Similarity:
Best Local Similarity:
Alignment Scores:
Pred. No.:
                                                                                                                                  162
                                                                                                                                                                             222
                                                                                                                                                                                                   41
                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                402
                                                                                                                                                                                                                                                                                                                                                           459
                                                                                                             Н
                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                      519
                                                      Match
                                                     Query DB:
                                                                                                                                                                                                                                                                                                          셤
                                                                                                                               셤
                                                                                                                                                                           d
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                            ઠ
                                                                                                                                                       ð
                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                ઠે
```

```
1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380
                                                                               180
                                                                                                                         698
                                                                                                                                                                200
                                                                                                                                                                                                          758
                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                            818
                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                             878
                                                                                                                                                                                                                                                                                                                                                                                                                         260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cytostatic; vasotropic; haemostatic; nephrotropic; gastrointestinal-Gen; respiratory-Gen; muscular-Gen; osteopathic; antiinflammatory; viruide; autiinflammatory; inmunosuppressive; cardiovascular-Gen; hepatotropic; viruide; analgesic; antianaemic; endocrine-Gen; neuroprotective; nootropic; cardiant; gene therapy; cellular prohiferative; differentiative disorder; brain; blood vessel; platelet; breast; colon; kidney; lung; ovarian; prostate; pancreatic; skeletal muscle; testicular; hormonal; bone metabolism; immune disorder; inflammatory disorder; cardiovascular disorder; endochnelial cell; liver; viral; pain; metabolic; anaemia; angiogenesic; neoplastic; endocrine disorder; neurological; heart; tissue typing;
                                       638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnLys
                      579 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCATTGAAGCCATCTTCTTGAAG
                                                                                                       CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                             TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                    LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                            cregaegeccarcracarretreargaegecraraceaeceregecraregeceaerarere
                                                                                                                                                                                                                                                                                                                                   221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                               819 GCCGGCGCGCACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                         LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     939 GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlugInProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1059 dagcadecherge-----ergeerecaeeeeeereagesee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1167 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1227 gagciecegerrececrecrececececedadagarcececececeaes
AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                               TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1287 AAGCCCGTGCCGCCCCCGGCCCCCGGCGTCCCCGAGACGAAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human 12303 protein cDNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADH51638 standard; cDNA; 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2004
                                                                                                                           639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            381
                                                                                 161
                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                              759
                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                     181
                                                                                                                                                                                                            669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
ADH51638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
```

gene;

human;

```
This invention relates to novel human DNA sequences (designated 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921 or 33751) and the proteins encoded by them. The invention may be useful for the development of compounds with a cytostatic, vasotropic, haemostatic, nephrotropic, gastrointestinal-Gen, respiratory-Gen, macular-Gen, osteopathic, antinichamatory, immunosuppressive, cardiovascular-Gen, neuroprotective, notroide, analgesic, antianaemic, endocrine-Gen, neuroprotective, noctropic or cardiant cartivity. In addition, the sequences may be useful for gene therapy. The invention may be useful in diagnosing, preventing or treating disorders carpivity. In addition, the sequences may be useful for gene therapy. The invention may be useful in diagnosing, preventing or treating disorders as a sequence in treating disorders and invention may be useful in diagnosing, preventing or treating disorder as sequence in a sequence in the sequence in the sequence is that of the present disorder, hormonal disorder, disorder, or and disorder, inflammatory disorder, or and disorder, inflammatory disorder, or and disorder, anaemia, angiogenesic disorder, viral disease, pain, metabolic disorder, neoplastic disorder, insorder, neoplastic disorder, anaemia, angiogenesic disorder, neoplastic disorder, neoplastic disorder, neoplastic disorder, neoplastic disorder, neoplastic disorder, neoplastic disorder, insorder, lister metabolic disorder, neoplastic disorder, insorder, lister present sequence is that of predictive medicine or pharmacogenomics. They meap of predictive medicine or pharmacogenomics. They may also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New 18607, 15603, 69318, 12303, 48000, 52920, 5433, 38554, 57301, 58324, '55063, 52991, 59914, 59921 or 33751 nucleic acid molecule or polypeptide, useful for diagnosing, preventing or treating e.g. proliferative or brain
  chromosomal mapping; predictive medicine; pharmacogenomic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Galvin KM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 18; 276pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lora JM,
                                                                                                                                                                                                                                                               11-MAY-2000; 2000US-00583373.
26-JUN-2000; 2000US-00583373.
28-JUN-2000; 2000US-00583373.
31-AUG-2000; 2000US-0229036F.
31-AUG-2000; 2000US-0229036F.
31-AUG-2001; 2001US-027507F.
31-AMR-2001; 2001US-027507F.
31-AMR-2001; 2001US-027507F.
31-AMR-2001; 2001US-027507F.
31-AMR-2001; 2001US-027507F.
31-AMR-2001; 2001US-02922983F.
31-AMR-2001; 2001US-02957683.
31-AMR-2001; 2001US-035936F.
31-AMR-2001; 2001US-035936F.
                                                                                                                                                                                                                                              2000US-0195734P
2000US-00583373
2000US-0214176P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAR-2002; 2002US-00094214
11-MAR-2002; 2002US-00095139
17-SEP-2002; 2002US-00245121.
                                                                                                                                                                                    18-MAR-2003; 2003US-00391399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2002; 2002US-00255532
04-DEC-2002; 2002US-00309804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Curtis RAJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-010868/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; ADH51639.
                                                                                                    JS2003219806-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glucksmann MA,
                                                              Homo sapiens
                 88; 12303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disorders
```

Silos-Santiago I;

```
281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                               401
                                                                                                                                                                                                                                                                                                                                                                                                                                     458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 AspargLeuGlySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       879 crecrosecoresconactrosconcasteconocaconossas 938
                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                         20
                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                            222 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGGCCCAGAGGAGGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                          LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGCCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                              21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                   41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                 IleileThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             519 recarcititatgescreeresesariteserititesarectaciteseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       579 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCACTAGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TrpH:sValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   699 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      759 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                     61 PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
the cDNA which encodes the human 12303 protein of the invention
                          Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0 U; 0 Other;
                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                    Gaps:
                                                                                                                                                               US-09-655-272-2 (1-398) x ADH51638 (1-1408)
                                                            4.12e-84
1692.50
88.44%
82.41%
81.41%
                                                                                          Percent Similarity:
Best Local Similarity:
Query.Match:
                                                                                                                                                                                          ч
                                                                                                                                                                                                                                                                                                                             282
                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                  Pred. No.:
                                                       Alignment
                                                                                 Score:
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
1166
                                                                                                                                                                                                                                                                      1226
                                                                                                                                                                                                                                                                                                                                                             1227 GAGGGGGGCTGCCCCGTGCCCCGCGGCGCGCCCCCCCAATCCCCCCCAGG 1286
                                                  GAGCAGCCACTG------CTGCCTCCACCCCCTGTCCAGCGCAGCCGCTGGCC 1106
                                                                                                                                                                                                                360
                                                                                                        340
                                                                                                                                                                                                                                                                                                                           GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAngnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; TWIK-8; gene; ss; ion channel family; ICF; cancer; leukaemia;
Alizheimer's disease; Parkinson's disease; multiple sclerosis; epilepsy;
hepatic disorder; cardiovascular disorder; cytostatic; neuroprotective;
nootropic; antiparkinsonian; hepatotropic; cardiovascular.
                                                                                                                                          GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                   AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                        ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1287 AAGCCCGTGCGCCCCCGCGCCCCCGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                    LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Silos-Santiago I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-FEB-2000; 2000US-00515520.
23-MAR-2000; 2000US-0185938P.
07-APR-2000; 2000US-0195734P.
11-APR-2000; 2000US-0195931P.
26-APR-2000; 2000US-0195931P.
26-APR-2000; 2000US-0195991P.
25-SEP-2000; 2000US-0233537P.
25-SEP-2000; 2000US-023501BP.
25-SEP-2000; 2000US-025628P.
15-DEC-2000; 2000US-025628P.
15-DEC-2000; 2000US-025628P.
11-APR-2001; 2001US-00796720.
26-APR-2001; 2001US-00833081.
25-APR-2001; 2001US-00833081.
25-APR-2001; 2001US-00833081.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00957683.
2001US-00964252.
2001US-00964256.
2001US-000024623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; cDNA; 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-MAY-2002; 2002US-00146733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glucksmann MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2004-069000/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; ADI27936.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003165891-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-2001;
17-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human TWIK-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Curtis RAJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-SEP-2003
                                                                                                                                                                                                                                                                1167
                                                  1059
                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                      381
301
                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADI27935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADI27935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AD127935

AD127935

AD127935

XX

AC

AD12

XX

AD12

XX

XX

AD12

XX

AD12

                                             g
                                                                                                        ò
                                                                                                                                                        g
                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                 ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
The invention relates to TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611,

IC47615, HNWDA-1, TWIK-9, alpha-2delta-4, 54414 and 53763 ion channel

CG fantly (ICF) mucleic acids and proteins. The TWIK-6, IC23927,

TWIK-8, IC47611, IC47615, HNWDA-1, TWIK-9, alpha-2delta-4, 54414 and

CG TWIK-8, IC47611, IC47615, HNWDA-1, TWIK-9, alpha-2delta-4, 54414 and

CC Giagnosing and treating ICF-related diseases. The sequences may be used

CC diagnosing and treating ICF-related diseases. The sequences may be used

CC diagnosing or deletions in a patient's genome that affect the activity of

CC mutations or deletions in a patient's genome that affect the activity of

CC proteins by expressing inactive proteins or to supplement the

CC of protein an production of antibodies against ICF proteins and in

CC assays to identify modulators of ICF protein expression and activity. The

assays to identify modulators of ICF protein expression and activity. The antibodies may also be

crequlate ICF protein antibodies, agonists and antagonists may be used to

crequlate ICF protein the protein activity. The antibodies may also be

crediated as diagnostic agents for detecting the presence of ICF proteins in

CC used as diagnostic agents for detecting the presence of ICF proteins in

CC samples (e.g. by immunoassay). The mucleic acids and proteins may be used

CC to prevent, diagnose and treat a wide variety of disorders, e.g. cancers

and leukaemia, Alzheimer's disease, Parkinson's disease, multiple

CC samples of the sequence data for this patent is also available in

cinvention. Note: The sequence data for this patent is also available in

clectronic format from USPTO at sequata.uspto.gov/sequence.html.
                                    and
alpha2delta-4, 54414, or 53763 nucleic acids and proteins, useful for preventing, diagnosing and treating e.g. cancers, Alzheimer's disease cardiovascular disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1408 BP; 204 A; 500 C; 459 G; 245 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                    Claim 1; SEQ ID NO 28; 638pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
No.:
```

```
81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                             162 AIGCGCAGCACCACGCTCCTGGCCCTGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                      222 GCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCAGCAGGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                          101 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                  121 CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                        21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                             41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                              GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                     61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                     1408
328
24
41
5
                           Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                    (1-1408)
                                                                                                    US-09-655-272-2 (1-398) x ADI27935
4.12e-84
1692.50
88.44%
82.41%
                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                          282
                                                       Query Match:
DB:
                                                                                                                                                         g
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                        ð
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                ò
```

281

9

40

458 120 518 140 578 160 638

519 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGG 141 AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys

셤

ਨੇ

TWIK-6, TWIK-7, IC23927, TWIK-8, IC47611, IC47615, HNMDA-1, TWIK-9,

셤 ò ద ò g ઠે 셤 ò 원 ઠે d ઠ 셤 ò

```
for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                        Identifying a compound for treating urological disorders, for example urinary incontinence by assaying the ability of the compound to modulate the nucleic acid expression or polypeptide activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present relates to a method for identifying a compound for treating uvological disorders e.g., urinary incontinence including overactive/oversensitive bladder, overflow urinary incontinence, stress urinary incontinence caused by dysfunction of the bladder, urethra or central or peripheral nervous system, prostaticis, benign prostatic hyperplasia, ancedulating hyperplasia in a cell and treating a subject having a urological disorder. The invention is also used in gene therapy. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 Ile11eThrThrI1eGlyTyrGlyAsnI1eValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202 GCCCTGGTTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGGCCCAGAGGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene therapy. The DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2772 BP; 521 A; 911 C; 868 G; 472 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2772
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present sequence is human potassium channel, KCNK4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 194-195; Opp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-655-272-2 (1-398) x AAD58498 (1-2772)
                                                                                         2002US-0349511P.
2002US-0360500P.
2002US-0365041P.
2002US-0374063P.
                                                                                                                                                     2002US-0403468P.
2002US-0414262P.
                                                                                                                                                                                    2002US-0419986P.
2002US-0423809P.
                                                                                                                                                                                                                   26-NOV-2002; 2002US-0429797P.
                                                          2003WO-US001450
                                                                                                                                                                                                                                                   (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                 Silos-Santiago I, Karicheti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.27e-84
1692.50
88.44$
82.41$
81.41$
                                                                                                                                                                                                                                                                                                              2003-598705/56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                              P-PSDB; AAE38597
WO2003061573-A2
                                                            16-JAN-2003;
                                                                                                         28-FEB-2002;
15-MAR-2002;
                                                                                                                                          19-APR-2002;
                                                                                                                                                   14-AUG-2002;
27-SEP-2002;
                                                                                                                                                                                    21-OCT-2002;
05-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
Pred. No.:
                                                                                           18-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
DB:
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1166
                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; urological disorder; urinary incontinence; gene therapy; cancer; kidney disorder; overactive; oversenaitive bladder; dysfunction; bladder; urethra; overflow urinary incontinence; stress urinary incontinence; nervous system; prostatitis; benign prostatic hyperplasia; nephrotrophic; potassium channel; KCNK4; gene; ds.
                                                                                                                                                                                      240
                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                                                                                                                                               966
                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                          301 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                     878
                                                                                                                                                                                                                                                  LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                       939 GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                  TGCCTGCTCTTTGTCTCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGGAGAG
                                                                                                                                                CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTTGGCGACTATGTG
                                                                                                                                                                                                        GCCGCCCGGACCCCCAGGAACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1227 GAGCGCGGCTGCCCCCCCCCCGCGAGAGGTCGCCGCCCGAAATCCCCCCAGG
TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                      ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                            GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                 TGGCACGTGCCACGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                         LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= "Human potassium channel"
/note= "The CDS is referred to as SEQ ID NO:45 in the
specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCCCGTGCGGCCCCCGGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  potassium channel, KCNK4 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; DNA; 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-2003
                                                                                                                                                                                                                     819 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1167
                                                                                                                                                                                                                                                                                  879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
191
                             639
                                                            181
                                                                                         669
                                                                                                                        201
                                                                                                                                                        759
                                                                                                                                                                                      221
                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD58498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD58498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
```

g

à 셤 à g ò g ò ద

```
The invention relates to a method of screening potential therapeutic compounds for cardiac therapeutic preparations by contacting a sample compounds for cardiac therapeutic preparations by contacting a sample comprising a level of expression of a gene that codes for a product encoded by a nucleic acid selected from 98 sequences given in the specification and its conservative variants, comparing the level of the expression of the gene to the level of expression of the gene to the level of expression of the gene in the absence of the compound, and identifying a potential therapeutic compound affects the level of expression of the gene. The pharmaceutical composition or active agents (i.e., beta-adrenary receptor antagonist, composition or active agents (i.e., beta-adrenary creeptor antagonist, phosphodiesterase inhibitor) as useful for treating heart failure in a subject. This sequence is useful for treating heart failure in a subject. This sequence represents one of the genes whose expression may be altered by the
                                                                                                                                                                                                                                                                                                                                                                                                         Screening potential therapeutic compounds for cardiac therapeutic preparations, useful for treating heart failure in a subject, comprises contacting a sample of cell or tissue with a compound and detecting gene expression level.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2772 BP; 521 A; 911 C; 868 G; 472 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 10; SEQ ID NO 39; 152pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            compounds detected by the screen of
                                                                                                                                                                                                                                                                           (ARTE-) ARTESIAN THERAPEUTICS INC.
                                                                                                                                                                                27-NOV-2002; 2002US-0429379P.
31-DEC-2002; 2002US-0437051P.
31-DEC-2002; 2002US-0437102P.
                                                                                                                                     26-NOV-2003; 2003WO-US037927
                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-450738/42.
                                             WO2004050894-A2
    Homo sapiens.
                                                                                                                                                                                                                                                                                                                        Bednarik DP
                                                                                          17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score:
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                   160
                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            380
                                                                                                                                                                                                                                                                        678
                                                                                                                                                                                                                                                                                                                                                                     738
                                                                                                                                                                                                                                                                                                                                                                                                                                                           798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGAGTA 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         978
                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyzMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCCACAGATGCCGGGCGCCTCTTC
                                                                                                                                   AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                               GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                           TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                          TGGCACGTGCCACGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                   recensererrated concentrated and a recenserated and a recense a recense and a recense a recense and a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGGCGCGGACCCCCAGGCAGGACTCCCCGGCCTATCAGCCGCCTGGTGTGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLyB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaleuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCCCGTGCGGCCCCGGGCCCCCGGGGACAAAGGCGTGCCGGTG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA; 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1267
                                                                                                                                     141
                                                                                                                                                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                             121
                                                                                        499
                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                           619
                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                   619
                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                              739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADP21365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                             8 8
                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                    ें
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

438 321 81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100 201 261 381 40 80 202 GCCCTGGTTCCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCAGCAGGGGGG 262 GAGGTCCGAGAGAAGTTCCTGAGGCCCCATCCGTGTGTGAGGGACCAGGAGCTGG 142 AFGCGCAGCACCACGCTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGT 21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly Matches: Conservative: Mismatches: Length: Indels: Gaps: US-09-655-272-2 (1-398) x ADP21365 (1-2772) 1692.50 88.44% 82.41% 81.41% 27e-84 Similarity: sal Similarity: d g g 셤 ò ò ò

ds; cardiant; gene therapy; cardiac therapeutic preparation; beta-adrenergic receptor antagonist; endochelial receptor antagonist; calcium channel antagonist; phosphodiesterase inhibitor; angiotensin converting enzyme inhibitor; heart failure.

for screening for cardiac therapeutic preparation.

(first entry)

09-SEP-2004 Gene KCNK4

ADP21365;

the invention

```
1266
                                                                                                                                                                                                                                                                                                                                                                                  GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                      GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                              320
                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                       LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                           918
                                                                                                                                                                                                                                                                                                                               280
                                                                                                                                                                                                                                                                                                                                                   978
                                                                                                                                                                                                                                                                   828
                    498
                                        140
                                                             558
                                                                               AspargleuGlySerSerLeuArgargGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                    618
                                                                                                                         180
                                                                                                                                           678
                                                                                                                                                                CysteuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                    recerecteringrecteaceceaecticererrererarateaacaacreaacaae 738
                                                                                                                                                                                                       220
                                                                                                                                                                                                                           cracadeccarcratarretearacretacecracecreeceresecratesecraters 798
                                                                                                                                     ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                          ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGGGGCTGCCCCCTGCCCCCCCCAAACCCCGCCCCAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                GIGILIA
                                                                                                                                                                                                                                                                                                                                                                                                               GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                   GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                        TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                       LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human G protein-coupled receptor-like (GPCR-like) cDNA #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABX91950 standard; cDNA; 3945 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1147
                                                                                                                                                                                                                                                                                                                                                                                                                                     1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABX91950
                                                                                                                                                                                                                              739
                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                             979
                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                       439
                                          121
                                                               499
                                                                                   141
                                                                                                       559
                                                                                                                           161
                                                                                                                                              619
                                                                                                                                                                   181
                                                                                                                                                                                      619
                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABX91950
IID ABX9
XX
AC ABX9
XX
DT 08-P
XX
XX
DD Hume
XX
KW Hume
KW Hume
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                        ል ጵ
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                             qq
                                                                                                  요
                                                                                                                                           셤
                                                                                                                                                                                   В
                                                                                                                                                                                                         ઠે
                   요
                                          à
                                                                                  ò
                                                                                                                           ò
                                                                                                                                                                 8
```

```
The invention relates to human G protein-coupled receptor-like (GPCR-1ike) proteins and the polynucleotides encoding them. The isolated sequences are used for the treatment of diseases of ophthalmic, neurological, immunological, or nephritic systems. They may also be used to treat hormonal dysfunction, cancer and other neoplasia, catherosclerosis, diabetes, in treating various anaemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells. The sequences may be used to promote better or faster closure of non-healing wounds, including crythroid precursors associated with vascular insufficiency and surgical and traumatic wounds and in generation or regeneration of other tissues, e.g. organs (e.g. pancreas, liver, intestine, kidney, skin, macle (smooth, skeletal, or cardiac) and vascular tissue or for promoting the growth of cells comprising such tissues. Sequences or for promoting the growth of cells comprising such tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Isolated polynucleotide for treating, e.g. ophthalmic diseases, comprises specified nucleotide sequences, or their translated protein coding portion, mature protein coding portion, extracellular portion, or active
hormonal dysfunction; neoplasm; atherosclerosis; diabetes; chemotherapy; anaemia; irradiation; erythroid precursor; erythroid cell; ulcer; organ; pressure ulcer; vascular insufficiency; surgical wound; traumatic wound; panoreas; liver; intestine; kidney; skin; endothelium; skeletal muscle; smooth muscle; cardiac muscle; vascular tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ή.
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Δ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 100-102; 158pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhou
                                                                                                                                                                                                                                  ; 2000US-00488725.
; 2000US-0055317.
; 2000US-00598042.
; 2000US-00620312.
; 2000US-00653450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Liu C,
                                                                                                                                                                                                                                                     25-APR-2000; 2000US-00552317.
20-UIN-2000; 2000US-00598042.
19-UUL-2000; 2000US-00623312.
31-AUG-2000; 2000US-00533450.
04-DEC-2000; 2000US-00533450.
                                                                                                                                                                                                     2000US-00747835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tang YT,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DRMANAC R T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-174164/17
                                                                                                                                                                                                                                                                                                                                                                  TANG Y T.
                                                                                                                                                                                                                                                                                                                                                     YAMAZAKI
                                                                                                                                                                                                                                                                                                                                                                                                                                  ZHANG J.
REN F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASUNDI V
                                                                                                                                                                                                                                                                                                                                                                                                   ZHOU P.
WANG D.
                                                                                                                                       US2002146692-A1
                                                                                                        Homo sapiens.
                                                                                                                                                                                                     21-DEC-2000;
                                                                                                                                                                                                                                     21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yamazaki V,
                                                                                                                                                                       10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Asundi V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ASUN/)
(DRMA/)
                                                                                                                                                                                                                                                                                                                                                      (YAMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                      WANG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                   ZHAN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    (RENF/)
                                                                                                                                                                                                                                                                                                                                                                       TANG/)
                                                                                                                                                                                                                                                                                                                                                                                                    ZHOU/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      domain.
```

BP; 606 A; 1344 C; 1238 G; 757 T; 0 U; 0 Other; Sequence 3945

3945 327 24 41 5 Length:
Matches:
Conservative:
Mismatches:
Indels: 1.97e-83 1688.50 88.41% 82.37% 81.22% Similarity: Percent Similarity: Alignment Scores: Query Match: DB: Best Local

US-09-655-272-2 (1-398) x ABX91950 (1-3945)

8

Human; G protein-coupled receptor; GPCR; gene; ss; ophthalmic disease; neurological disease; immunological disease; nephritic disease; cancer;

1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly 20

```
Location/Qualifiers
                                                         BP.
                                                                                                                                                                                                                                                                                                                                                                       2000US-00488725.
2000US-00552317.
2000US-00598042.
2000US-00620312.
2000US-00653450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               υ,
                                                         standard; cDNA; 3996
                                                                                                                                                                                                                                                                                                                                                     22-DEC-2000; 2000WO-US034983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liu
                                                                                              (first entry)
                                                                                                                                                                                                                                                                3996
                                                                                                                                                                                                                                                                            ಹ
                                                                                                                                                                                                                                                                     52. .39
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tang YT,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442255/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                             HYSEO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAU04571.
                                                                                                                                                                                                                                                                                                                 WO200153454-A2
                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                         21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                    25-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                           20-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                      19-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                              31-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamazaki V,
                                                                                               17-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Asundi V,
 381
                                                         AAS08652
                                                                             AAS08652;
                                                                                                                                                                                                                                                                                                                                                                                                                                            (HXSE-)
                                                           8
                                                                                                                                                                                    1974
                                                                                                                                                                                                                          2034
                                                                                                                                                                                                                                                                                                                                            2214
                                                                                                                                                                                                                                                                                                                                                                                   2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2682
                                                                                                                                                                                                                                                                                                        2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2454
                     1738 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGAGCGACCAGGAGCTGGGCCTC 1797
                                                                                                CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGTGCGGACCCAGAAACCAAACTGGCC 1857
                                                                                                                                     160
                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                            100
                                                                                                                                                                120
                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                          200
                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCTCGGCCTGGCTTACTTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
         40
                                               9
                                                                                      80
                                                                                                                                                                           GACCGGCTGCGCTCCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                          CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGTCCCGCCGCACTCGGGCAGAGATGGGCGCCTCACGGCTCAGGCTGCGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                    PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                       CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                          recarctritarececresisesarirececretrinesarectacrescaseses
                                                                                                                                                                                                                                              AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                     TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                              CysleuleuPheValleuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                             TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                        2275 GCCGGCGCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLyB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
          AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                            AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                      ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                              LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                        1798
                                                                                                                                              1858
                                                                                                                                                                 101
                                                                                                                                                                                    1915
                                                                                                                                                                                                                                                                 2035
                                                                                                                                                                                                                                                                                                                                                                                   2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2623
          21
                                               41
                                                                                      61
                                                                                                                            81
                                                                                                                                                                                                                          1975
                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                             2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                        셤
                                           ઠે
                                                               유
                                                                                                   셤
                                                                                                                                           유
                                                                                                                                                                               g
                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
         Š
                                                                                    ò
                                                                                                                          ò
                                                                                                                                                                ò
                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
```

```
2683 GAGGGGGGCTGCCCGCTGCCCCGCGCGCCGAGAGGTCGCCGCCGCCCAAATCCCCCCCAGG 2742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; G-protein coupled receptor like protein; GPCR; immunogen, ophthalmic disease; neurological disease; Alzheimer's disease; parkinson's disease; meurological disease; HIV; candidiasis; human immunodeficiency virus; autoimmune disorder; multiple sclerosis; systemic lupus erythematosus; rheumatoid arthritis; platelet disorder; thrombocytopaenia; aplastic anaemia; inflammatory disorder; septic shock; systemic inflammatory response syndrome; SIRS; hormonal dysfunction; cancer; atherosclerosis; wound; tissue regeneration; haemophilia; leukaemia; reperfusion injury; psoriasis; diabetes; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence encodes a human G-protein coupled receptor (GPCR)-like protein. The GPCR-like polypeptides and polymorlectides are useful for the treatment of diseases of ophthalmic, neurological (e.g Alzheimer's disease and Parkinson's disease, immunological (e.g Alzheimer's candidiasis), autoimmune disorders (e.g multiple sclerosis, systemic lupus erythematosus and rheumatoid arthritis), platelet disorders (e.g thrombocytopaenia and aplastic anaemia), inflammatory disorders (e.g. thrombocytopaenia and aplastic anaemia), inflammatory disorders (e.g. septic shock and systemic inflammatory response syndrome, SIRS) and nephritic systems. They may also be used to treat hormonal dysfunction, cancer, atherosclerosis, wounds, tissue regeneration, haemophilia, leukaemias, reperfusion injury, psoriasis and diabetes. Numerous examples
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      useful for treating diseases of ophthalmic, neurological, immunological and nephritic systems and hormonal dysfunction, cancer, atherosclerosis and diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New G-protein-coupled receptor-like polypeptides and polynucleotides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human cDNA encoding G-protein coupled receptor like protein, GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product= "GPCR #8"
/note= "This sequence is specifically claimed"
                                                                                                                                       LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŋ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>م</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 197-202; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhon
```

us-09-655-272-2.rng

```
2086 GACCGGCTGGGCTCCTCCCTGCGCCATGGCACACACACATTGAAGCCATCTTTGAAG 2145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValSerArgargThrargalaGluWetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                      1669 ATGCGCAGCACCACCTCGCTGCTGCTGGTCTTGCTTTACTTGGTGTCTGGT 1728
                                                                                                                                                                                                                                                                                                                     1849 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGTGCGGACCCAGAAACCAACTGGACC 1908
                                                                                                                                                                                                                                                                                                                                                                                                   LeupheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                          221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspArgLeuGlySerSerLeuArgArgGly11eGlyHis1leGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                        AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
of each type of disorder are given in the specification. Anti-GPCR-like protein antibodies are useful for detecting or quantitating the polypeptide in tissue. The polypeptides can also be used as molecular weight markers and as a food supplement
                                                                                                                                                                                                                                                                                                                                                     61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2146 TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                      41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                           MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                           Sequence 3996 BP; 611 A; 1366 C; 1249 G; 770 T; 0 U; 0 Other;
                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                     US-09-655-272-2 (1-398) x AAS08652 (1-3996)
                                                                                                 2e-83
1688.50
88.41%
82.37%
81.22%
                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                \text{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
      8$88888
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                            D
                                                                                                                                                                                                                                                                                                                                                          ò
```

261

rGlyProSeralaProProProGluLys 300 :::	aProProAlaValValGluProAlaGly 320	craccaccaccaccaccaccaccacaccacacacac	IGluThrProSerProProThrAlaSer 340	rcagccaccricccaccacaccrica 2673	elleAspGluSerSerAspThrGlnSer 360	carcaddagretedaracaeadae 2733	GGlyArgArgArgProAsnProSerLys 380	AGGTCGCCGCCCAATCCCCCAGG 2793	uArgAspLysAlaValPro 397	ccgagacaaaggcgtgccg 2844	
281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProFluLy8	301 GludinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly	2566 GAGCAGCCACTGCTGCCTCC	321 ArgproGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer	AGGCCCCGATCCC	341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer	GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC	361 GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgArgProAsnProSerLys	2734 GAGCGGCGCGCTGCCCCGCGCGCGCGGCGGCGCCGCCGCCCCAAATCCCCCCAGG	381 LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValPro	2794 AAGCCGTGCGGCCCCGGGCCCCCGAGACAAAGGCGTGCCG	
281	301	2566	321	2614	341	2674	361	2734	381	2794	
& 8	ò	g	ò	g	ò	đ	ò	qq	ò	g	

2, 2005, 22:33:08 Search completed: February Job time: 622.438 secs

Title: Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

Searched:

```
Sequence 45, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 6, Appli
Sequence 12, Appli
Sequence 10, Appli
Sequence 1, Appli
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Appli
Sequence 15, Appl
Sequence 2007, Ap
Sequence 1, Appli
Sequence 5825, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATGCGCAGCACCACGCTCCTGGCCTGCTGGCTCTTGCTTTACTTGGTGTCTGGT
                                       Sequence 7, A
Sequence 7, A
Sequence 80,
Sequence 9, A
Sequence 9, A
               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1182
328
24
41
5
                                                                                                                                                                                                                 US-09-362-842-5
US-09-362-842-1
US-09-362-842-3
US-08-333-312-3
US-09-362-842-66
US-09-270-767-13872
US-09-561-763-12
US-09-561-763-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                               US-07-945-283-1
US-09-252-991A-5825
                                                                                                                                                                                                                                                                                                                                                                                                    US-09-336-643A-15
US-09-252-991A-2007
                        US-09-431-367B-4
US-09-561-763-7
US-09-431-367B-7
US-09-336-643A-80
US-09-561-763-9
                                                                                                                                                                                                                                                                                                                                              US-09-431-367B-10
US-09-362-842-7
                                                                                            US-09-431-367B-9
US-09-814-915A-45
                                                                                                                                                                                                                                                                                                                                                                         US-08-916-421B-1
US-09-692-570-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-2 (1-398) x US-09-432-470-1 (1-1182)
                                                                                                                                                    -09-362-842-13
                                                                                                                                                                                           US-08-332-312-1
US-09-362-842-11
                                                                                                                       US-08-749-816-1
US-09-144-914-1
                                                                                                                                                                               US-09-236-080-3
                                                                                                                                                               -09-144-914-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SQUENCE 1, Application US/09432470

Patent No. 6426197

GENERAL INFORMATION:
APPLICANT: David Malcolm Duckworth
APPLICANT: Conrad Gerald Chapman
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP-30190
CURRENT FILING DATE: 1999-11-03
EARLIER APPLICATION NUMBER: UK 9923668.9
EARLIER PILING DATE: 1999-10-07
EARLIER PILING DATE: 1999-10-07
EARLIER FILING DATE: 1998-11-03
NUMBER OF SEQ ID NOS: 4
SQUIMARE: FASESEQ for Windows Version 3.0
SEQ ID NO 1
LENGTH: 1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.43e-124
1692.50
88.44%
82.41%
ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
Query Match:
DB:
 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-432-470-1
                                                                                                                                                                                                                                                                                                      191.5
191.5
191.5
191.5
185
176.5
159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-432-470-1
 TYPE: DNA
    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:
-MODEL=frame+ pAn.model -DEV=xlh
-MODEL=frame+ pAn.model -DEV=xlh
-MODEL=frame+ pAn.model -DEV=xlh
-Q=/Cgn2_1/USPTO spool/US0965572/runat 02022005 141715 6768/app query.fasta_1.1102
-D=/ESDE_TESTO spool/US0965572/runat 02022005 141715 6768/app query.fasta_1.1102
-DB=/ESDE_TESTO spool/US0965572/runat 0.5UFPIX=TN=-DEV=N=N-1 -NOFN=0
-UNITS=51e -STRAT=1 - END=-1 -MATRIX=blosum62 - TRANS=human140.cdi
-LIST=45 -DOCALIGN=200 -THR SCORE-pot -THR MAX=100 -THR MIN=0 -ALIGN=15
-MODEL_CCAL -OUTPMT=pto -NOFM=ext -HRAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USDER_US09655272 @CGN 1 1 30 @runat 02022005 141715 6768 -NCPU=6 -ICPU=3
-NO MMAP -LARGEQUERY -NEG SCORES 0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THRANDS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOPE 6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Appli
Sequence 3, Appli
Sequence 195, App
Sequence 432, App
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 82, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Appli
Sequence 3, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 6, Appli
                                                                                            February 2, 2005, 22:01:01; Search time 107.273 Seconds (without alignments) 2637.130 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                              MRSTTLLALLALVLLYLVSG.....SKKPSRPRGPGRLRDKAVPV 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                     1649014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            led Patents_NA:*
/cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                   nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-432-470-1
US-09-432-470-3
US-09-620-312D-195
US-09-236-080-5
US-09-236-080-1
US-09-236-080-1
US-09-336-643A-82
US-09-336-643A-82
US-09-431-3678-3
US-09-561-763-1
US-09-561-763-1
US-09-561-763-1
US-09-561-763-1
                                                                                                                                                                                                                                                                                                                  Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                          824507 segs, 355394441 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                      BLOSUM62
Xgapop 10.0 , Ygapext (
Ygapop 10.0 , Ygapext (
Fgapop 6.0 , Fgapext Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                     US-09-655-272-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1218
3996
2730
1994
1246
3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1497
3452
3452
996
```

Query

Score

Result

Jatabase

81.2 39.1 37.7 37.4

26439786111

438 438 438 427.5

1692.5 1692.5 1688.5 812

```
APPLICANT: David Malcolm Duckworth
APPLICANT: David Malcolm Duckworth
APPLICANT: Conrad Gerald Chapman
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP-30190
CURRENT APPLICATION NUMBER: US/09/432,470
CURRENT FILING DATE: 1999-11-03
EARLIER APPLICATION NUMBER: UK 9923668.9
EARLIER FILING DATE: 1999-10-07
EARLIER FILING DATE: 1999-11-03
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 3
                                                                                                                                                                                                                                     Indels:
                              Sequence 3, Application US/09432470 Patent No. 6426197 GENERAL INFORMATION:
                                                                                                                                                                                                       2.53e-124
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                   TYPE: DNA ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                           LENGTH: 1218
                                                                                                                                                                                   US-09-432-470-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514
                    SULT 2-09-432-470-3
                                                                                                                                                                                                                                                                                                                                                         157
                                                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                                                                                                      277
                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                    334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                         320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgProGlySerProAlaProAlaGluLygValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                        945
                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                         897
                                                                                                                                                                                                                                                                              ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                       CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                 CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                    AspargLeuGlySerSerLeuArgArgGlylleGlyHislleGluAla1lePheLeuLys 160
                                                                                                                                                                                                  daccegeredescretereredescaredearedescarerareragescaretrerearg
                                                                                                                                                                                                                  TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                 597
                                                                          240
                                                                                          100
                                                                                                         297
                                                                                                                        120
                                                                                                                                       357
                                                                                                                                                                                                                                   537
                                             180
        80
                            9
                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLyS
                                                                                                                                                                                                                                                                                                                                                                           AlaLeuAspTyrProSerGluAsnLeuAlaPheileAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                   GluginProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                    | IlelleThrThr1|eGlyTyrGlyAsn1|eValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                 PhelleLysLeuLeuValGluhlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                             21 AlaLeuValPheGlnAlaLeuGluGlnPrOHisGluGlnGlnAlaGlnLySLySMetASP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                 178
                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                             898
                                                                                                                                                                                                                                                                       538
                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                           358
                                                                                                                                                                                           141
                                                                                                                                                                                                         418
                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                        478
                                                                                                                                                                                                                                                        181
                                                                 61
                                                                                                              241
                                                                                                                                                            121
                   61
                                                                                                                              101
                                                                                                                                             298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                 οp
                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                            ∂
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                         g
                                                                                                                                                                                          à
                                                                                                                                                                                                       g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                       ò
                                                                                                                        8 8
                                                                                                                                                           ò
                                                                            원 상 원
                                   g Q
                                                            ∂
                Q
```

```
TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                                                              513
                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                       453
                                                                                                                                                                                                                                                                                                  276
                                                                                                                                                                                                                                                                                                                         333
                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                393
                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                     156
                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                             96
                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                           141 AspargLeuGlySerSerLeuargArgGly1leGlyHis1leGluAla1lePheLeuLyS
                                                                                                                                                                                                                                                                                                                                                                                         IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                         41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                  1218
328
24
41
41
5
                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                         US-09-655-272-2 (1-398) x US-09-432-470-3 (1-1218)
     ઠ
```

m

```
Query Match:
DB:
                                                                                                                                                                                                                                                                                       Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                  GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGlulys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluArgGlyCygAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                              ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                                                              873
                                                                                                                                                                                                                                                                                                                                                                                                                             GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340
                                         633
                                                                                                                                                                                                  GCCGGCGCGCACCCCAGGCACCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATC 753
                                                                                                                                                                                                                                         LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                              GTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGCTCAGCTGCCAGCTGGACT
                         ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCGCGCCGCTGCCCCGCGCGCGCGAGAGGTCGCCGCCCCCAAATCCCCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1162 AAGCCCGTGCGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Tang, Y. Tom
APPLICANT: Tang, Y. Tom
APPLICANT: Tang, Y. Tom
APPLICANT: Asund, Vinod
APPLICANT: Asund, Vinod
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Xue, Aldong J.
APPLICANT: Xue, Aldong J.
APPLICANT: Xue, Aldong J.
APPLICANT: Xue, Aldong J.
APPLICANT: Amg, Yonghong
APPLICANT: Amg, Yonghong
APPLICANT: Amg, Yunging
APPLICANT: Mang, Dunrui
APPLICANT: Wang, Enhang
APPLICANT: Wang, Shiwei
APPLICANT: Wang, Shiwei
APPLICANT: Wang, Chiwei
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Obn Tillinghaet
APPLICANT: John Tillinghaet
APPLICANT: Wang, Shiwei
APPLICANT: Wang, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 195, Application US/09620312D
; Patent No. 6569662
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-620-312D-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1042
                                       574
                                                                                                                    634
                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1102
                                                                               201
                                                                                                                                                                                                    694
                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                 754
                                                                                                                                                                                                                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                              814
                                                                                                                                                                                                                                                                                                                                                                                                      281
                                                                                                                                                                                                                                                                                                                                                                                                                                            874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             381
                             음 상 음
                                                                                                                                                  8 6
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
```

```
2205
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1729 GCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGGAGGCAGAGGAGGAGGGG 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1909 AGCAACAGCAGCCAC---TCAGCCTGGGACCTGGGCACCTTCTTTTTTCTCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1966 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141 AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2146 TGGCACGGACCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2206 TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 PhellelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2086 GACCGGCTGGGCTCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201 LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crecadecearcracraracraracrecerraceacecraresecraresecraresecrarese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                   3996
244
141
5
                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-2 (1-398) x US-09-620-312D-195 (1-3996)
PRIOR APPLICATION NUMBER: 09/488,7
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 1105
SECTWARE: pt_r_genes Version 1.0
SEQ ID NO 195
LENGTH: 3996
                                                                                                                                                                                                                                                                   2.83e-123
1688.50
88.41%
82.37%
81.22%
                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                      (3896)
                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                   ; NAME/KEY: CDS
; LOCATION: (52)
US-09-620-312D-195
                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                        -4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
```

ò

```
1502 AAGGCCAATGTCACGGCAGTTCCGGGAGACACGGCGAAGGCTCAGCGTGGAGATCCAC 1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1622 CAGCGGGCCCACTCACTGGACATGCTGTCCCCCGAGAAGCGCTCTGTCTTTGCTGCCTCTG 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATAAGCTGCAGCGGCCGACCACCATCGCATGGAGCGCCGGCGGCTGGGCCTGGAC 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------proproglutysgluglnProteuteurese 307
                                                                                                                                                                                                                                                                                                                                                                 ||||:::||||||::
| GACCAACTITGGAACCATCTITGGGAAAAGCATTGCAAGAGTGGAGAGGTCTTTCGAAA 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 279
                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                            161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                               141 AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLyg 160
                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                     850
                                                                                                                                                                                                             80
                                                                                                                   40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240 IleLeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 ProglyAspGlyThrGlyGlnAsn---SerProAlaTyrGlnProLeuValTrpPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260 AlaValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201 LeugluAlaileTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                               CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                 61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                          AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                              HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                          MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
   132
55
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----ThrGlnArgThrGly-ProSerAlaPro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrGlyThrValThrAlaArgVal-------
                                               US-09-655-272-2 (1-398) x US-09-799-451-432 (1-2730)
  Mismatches:
Indels:
Gaps:
      41.92%
       Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1142
                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                         21
                                                                                                                                                                     4.1
best Local S
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                        셤
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                    ద
                                                                                                                         ò
                                                                                                                                                                       à
                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                        2734 dAGCGCGGCTGCCCGCTGCCCCGCGCGCGCGAGAGGTCGCCGCCGCCCAAATCCCCCCAGG 2793
                                                       2505
                                                                                                    2565
                                                                                                                                                  2613
                                                                                                                                                                                     2386 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 2445
                                                                                                                                                                       ArgProGlySerProAlaProAlaGluLyBValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                   GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                              300
                                                                                                                            320
                                                                              GlyThrvalThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLy8
                                                                                          2506 GGCACAGTGACAGCGGGCGTGACCAGGAGCCGGGGCCGCCGCCGCCGCCGCGGAAAG
                                                                                                                            GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValGluProAlaGly
                                                                                                                                         AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                      ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                      2794 AAGCCCGTGCGGCCCCGGGCGCGTCCCCGAGACAAAGGCGTGCCG 2844
                                                                                                                                                                                                                                                                                                                381 LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValPro 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2730
179
61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6783969el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SQOTWARE: pt_Legenes Version 2.0
SEQ ID NO 42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 432, Application US/09799451
Patent No. 6783969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ren, Feiyan
Zhang, Jie
Xue, Aldong J.
Zhao, Jian-Rui
Mang, Jian-Rui
Ma, Yunging
Yamazaki, Victoria
Chen, Rui-hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.83e-54
812.00
56.21%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang, Dunrui
Yang, Yonghong
Wehrman, Tom
Ghosh, Reena
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Tang, Y. Tom
APPLICANT: Zhou, Ping
APPLICANT: Goodrich, Ryle
APPLICANT: Asundi, Vinod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: CDS
; LOCATION: (473)..(2086)
US-09-799-451-432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                   2674
                                                                                                                                                                                                                                                                          361
                                                             2446
                                                                                   281
                                                                                                                                  301
                                                                                                                                                                                                      2614
                                                                                                                                                                               321
                                                                                                                                                                                                                             341
                                       261
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                        ò
                                                                                                                                                                                                  8 & B
                                                                                                                                                                                                                                                                         ò
                                                                               g &
                                                                                                                                  à
                                                                                                                                                  염
                                                             g
```

Oy 121 CysllePheTyrAlaLeuValGlylleProLeuPheGlyMetLeuLeuAlaGlyValGly 140 Db 958 TGCATCATCTATGCTTGCTGGAATTCCCCTCTTTGGCTTTCTACTGGGGGTTTGT 1017 Oy 141 AspArgLeuGlySerSerLeuArgArgGlylleGlyHislleGluAlaIlePheLeuLys 160 1018 GATCAGCTAGAAATTTTGGAAAAGGAATTGCCAAAGTGGAAGACACATTATTATA 1077 Oy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuLleGly 180 Oy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180 1078 TGGAAATGTCAGAAGGAATTCGTATCTCCACCACATCATCTTCATCTTCATCTTTAGG 1137	Oy 181 CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200	221 ProGlyAspGlyThrGlyGlaAsnSerProAlaTyrGlaProLeuvalTrphefrpile 1258 GCAGGTGGATCACACATTCAAATATCTGGACTTCTGAAGC 241 LeubheGlyLeualaTyrPheAlaSsrValLeunhrThrIleGlyAsnTrpLeuhAgal 1318 GCAGGTGGATCACACATTCAAAACCTGTGGTGTGTGTGTG
Qy 307 rSerLeuProAlaProProAlaValUalGluProAlaGlyArgProGlySerProAlaPr 327	Oy 367 oArgAlaProArgGlyArgArgArg	Sequence 5, Application US/09236 Patent No. 6424217 Parent No. 6424217 Parent No. 6424217 PAPLICANT: CORRACTION: APPLICANT: CORRACTION: APPLICANT: CORRACTION: FILE REFERENCE: GP30031 CURRENT APPLICATION NUMBER: US, SOFTWARE: FastSEQ for Windows VSEQ ID NO 5 LENGTH: 1994 TYPE: DNA ONGANISM: Mus musculus O9-236-080-5 LENGTH: 1994 TYPE: DNA OF COORDINATION OF

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                           쉱
                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1022
                                                                                                                                                                                                                                                                                                                                                                                                      -----Th 291
                                                                                                                                                                                                                                                                                                                                           221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplie 240
                                                                                                                                                                                                                     TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly 180
                                                                                                                                                                                                                                                                                                              CysLeuleuPhevalLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                       AspargleuglySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeulys 160
                                                                                                                                                                                                                                                                                               662
                                                                                                                                                         AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr 100
                                                                                                                                                                                       ||||:::|||||||
| AACACCTCCAATCAATCAGTGCGGGATTTGGGAAGTTCCTTCTTTTGCTGGGACT 422
                                                                                                                                                                                                PheileLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr 80
                                                                 40
                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                        783 GCAGGIGGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                     ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAACGTCACAGAATTCAAAGAAACCAGAGGGGGGACTGAGTGGAGATTTATGAC
                                                                                                                                                                                                                                                              ||||:::|||
|dicagciadgacaccatatttggaaaaggaattgccaaagtggaagatacgttattattaag
                                                                                                                                                                                                                                                                                          Alareuval PheGlnAlareuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                               HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                       MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281 GlyThrValThrAla-----ArgValThrGlnArg-----
13
                     x US-09-236-080-1 (1-1246)
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTTCCAGCGGCCACCTCCA 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rGlyProSerAlaProProPro 298
 37.42%
                         (1-398)
                         US-09-655-272-2
                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                723
                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                              363
                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                       543
                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                  663
                                                                                                                                                                                            101
                                                                                                                                                                                                                          121
                                                                                                                                  61
                                                                                                                                                               81
                                        ч
                                                                     21
   Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                        g
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                 õ
                                                                                                                             상 임
                                                                                                                                                              ò
                                                                                                                                                                           d
                                                                                                                                                                                            ò
                                                                                 g
                                                                                                    8 6
                                                       유
                                                                     ò
```

```
TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspargieudlySerSerLeuArgargGlyileGlyHisIleGlualallePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MetArgSerThrThrLeubeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 IlelleThrThrIleGlyTVrGlyAsnileValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          233 GCCACCGTGTTCAAAGCATTGGAGCGCTCATGAGATTTCACAGAGGACCACCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 PhelleLysLeuLeuValGlualaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |||::: :::||| |||::: ||| |||353 CTCATTCAGCAAATAGGAATAAATGCAGGGATTATACCG------TTAGGA
                           APPLICANT: Rutter, Marc
APPLICANT: Rutter, Marc
APPLICANT: Rutter, Marc
APPLICANT: Rutter, Marc
APPLICANT: Wang, Jian-Wang
TITLE OF INVENTION: NO. 6399761e1 Human Potassium Channels
TILE REFERENCE: SEQ-15P
CURRENT APPLICATION NUMBER: US/09/336,643A
CURRENT PILING DATE: 1999-06-18
PRIOR APPLICATION NUMBER: 60/106,687
PRIOR APPLICATION NUMBER: 60/116,448
PRIOR APPLICATION NUMBER: FOT/US99/03826
PRIOR PILING DATE: 1999-01-19
PRIOR PILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 87
SOFTWARE: FastSEQ for Windows Version 4.0
FRIOR PILING DATE: 1999-02-22
SOFTWARE: FastSEQ for Windows Version 4.0
FEVENTIAL OF SEQ ID NOS: 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                      3300
149
59
87
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-655-272-2 (1-398) x US-09-336-643A-82 (1-3300)
APPLICANT: Miller, Andrew P. APPLICANT: Curran, Mark Edward
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.14e-51
778.00
67.53%
48.38%
37.42%
                                                                                                                                                                                                                                                                                                                                                                                          ... (1285)
                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: H. sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (50)
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-336-643A-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

703

; Sequence 82, Application US/09336643A ; Patent No. 6399761

US-09-336-643A-82

•

us-09-655-272-2.rni

142 ArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluhlaIlePheLeuLys 160	1
8 8 8 8 8	
Oy 341 -AlaLeuAspTyr	NEGROTIA 1979-3

```
580 ATCGAGGGCCTCTACTACTCCTTCATCACCATCCCCATCGGCTTCGGTGACTTTGTG 639
                                                                                                                                                                                                                                                                                                                                                                             315 ValValGluProAlaGly-------
                                                                                                                                                                                                                            285 ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1287 GGCTGGCCTCTCAGACGAGGAGA----
                                                                                                                                                                                                                                                                             ------ArgValThrGlnArgThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 3452
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-431-367B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   372
                                                                                                                                                                                                                                                                             286
                                                유
                                                                                              g
                                                                                                                                             셤
                                                                                                                                                                        ò
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                     ð
                                                                                                                         8
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgLeuGlySerSerLeu---ArgArgGly11eGlyHislleGluAlailePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |||::: :::::: ||| ||||||||| GTCCTAGTGACCAGGTGAACTAC 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                          210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AsnIleValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyrAlaLeuValGly 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGACTAGGGCAGTTCCTTACCAAGAGGTGTGAGTCTGCGGAAGGCG------ 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------CAGATCACGTGCACAGTCATCTTCATCGTGTGGGGC 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 CysleuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     211 GCAGGÀCAGGGT------GTGGCCATCÀCAGGGAACCAGACCTTCAACAAC--- 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68
                                                                                                                                                                                                                                                                                                                                                                                                         GlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAspGlnPheLeuArg 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsnHisSerSerAla 88
      APPLICANT: CULTIS, Rory A.J. et al.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP2
CURRENT APPLICATION NUMBER: US/09/561,763
CURRENT FILING DATE: 2000-04-29
PRIOR APPLICATION NUMBER: 09/431,367
PRIOR APPLICATION NUMBER: 09/431,367
PRIOR APPLICATION NUMBER: 09/431,367
PRIOR FILING DATE: 01-11-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPheGlnAlaLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49 AspHisProCysValSerGlnLysSerLeuGluAspPhelleLysLeuLeuValGluAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TrpAsnLeuGlySerAlaPhePhePheSerGlyThrIleIleThrThrIleGlyTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3452
130
78
144
127
                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-2 (1-398) x US-09-561-763-1 (1-3452)
                                                                                                                                                                                                                                                                      7.39e-25
438.00
43.518
27.208
21.078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::
                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                               NAME/KEY: CDS
LOCATION: (10)..(1506)
                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                               LENGTH: 3452
                                                                                                                                                                                                                                        US-09-561-763-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484
                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                              Query Match:
DB:
                                                                                                                                                                                                                                                                                No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   988 cresescicicaasscssissesscreceascaciececerrecerssis-secerasia 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1107 ccacerarcaagerececagargagagergregecaeggececergaagaeagerecee 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1167 TGCCCCCGAGGTGTTCATGAACCAGCTGGACCGCATCAGCGAGGAATGCGAGCCATGGGA 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----CCTCCAAGTCCTCGCTAGAGGACAA 1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGly-SerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer-- 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341 -AlaLeuAspTyr------ProSerGluAsnLeuAlaPhelleAspGluSe 355
                                                                                                                          669
                                                                                                                                                                                                                                         258
                                                                                                                                                                                                                                                                                                                                                                    747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        808 TTTGAGAGCTCCCCACACTCCCGGAAGGCCCTGCAGGTGAAGGGGAGCACAGCCTCCAAG 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       868 GACGTCAACATCTTCAGCTTTCCTAGAAGGAAGAGACCTACAACGACCTCATCAAG 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     295 AlaProProProGluLysGluGlnProLeuLeuProSerSerLeuProAlaProProAla 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application US/09431367B
Sequence 1, Application US/09431367B
Sequence 1, Sequ
                                                                               240 IleLeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeu---
                                                                                                                                                                                                                                                                                                            259 -------------ArgAlaValSerArgArgThrArgAla------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     268 ---GluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThrGlyThrValThrAla---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       355 rSerAsp-ThrGlnSerGluArgGlyCysAlaLeuProArgAlaProArg-----
221 ProGlyAspGlyThrGlyGlnAsnSerProAla---TyrGlnProLeuValTrpPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1335 CTTGGCAGGGGGGGGGCCCCCGAGGGGGGCTGAAGCCAAGGCGCCCC 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------GlyArgArgArgProAsnProSerLysLysProSerArgPro 385
```

340

q

g ò

ઠ

q

ò

ò

g ò g ò g ò g ò 8 8

us-09-655-272-2.rni

```
RESULT 12
US-09-561-763-6
US-09-561-763-6
Sequence 6, Application US/09561763
Patent No. 664373
RENERAL INFORMATION:
APPLICANT: Curtis, Rory A.J. et al.
TILE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILER REFERENCE: MAI-074CP2
CURRENT APPLICATION NUMBER: US/09/561,763
CURRENT ELLING DATE: 2000-04-29
PRIOR FILING DATE: 01-11-1999
PRIOR FILING DATE: 01-03-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 996
                                                                                                                                                                                                                                                    1167 IGCCCCCGAGGTGTTCATGAACCAGGTGGACCGCATCAGCGAGGAATGCGAGCCATGGGA 1226
                                                                                                                                                                                                                                                                                                                                                                                                                          5 ThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPhe
                                                                                    928 CAGAICGGGAAGAAGACCAIGAAGACAAGCGGGGGTGGGGAGACGGGCCCGGGCCCAGGG
                                                                                                                 295 AlaProProProGluLysGluGlnProLeuLeuProSerSerLeuProAlaProProAla
                                                                                                                                                                                                                                ProGly-SerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer--
                                                                                                                                                                                                                                                                                                                                                 341 -AlaLeuAspTyr------ProSerGluAsnLeuAlaPhelleAspGluSe
                                                                                                                                                                                                                                                                                                                                                                             227 ceccasaditacaccactarctrocassacscascarcactitosisaacacsa
                                                                                                                                                                                                                                                                                                                                                                                                            rSerAsp-ThrGlnSerGluArgGlyCysAlaLeuProArgAlaProArg------
                          868 GACGICAACAICTICAGCTITCTITCCAAGAAGGAAGAAGACCIACAACGACCICAICAAG
                                                                                                                                                                             ---Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------GlyArgArgProAsnProSerLysLysProSerArgPro 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              996
1111
448
1115
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-655-272-2 (1-398) x US-09-561-763-6 (1-996)
                                                           -----ArgvalThrGlnArgThr
                                                                                                                                                                             315 ValValGluProAlaGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.48e-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             427.50
51.79%
36.16%
20.56%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                   340 ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1)..(996)
US-09-561-763-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            372
                                                                                                                                                                                                                                            322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                   Ω
                                                                                                                                                                                                                                                                                                                                                                                                            ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                g
                                                                                                                                                                                  ð
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                   ð
                             임
                                                                ò
                                                                                            음
                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 CysleuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :::||| :::|||:::|||580 ATCGAGGGCCTCTACATCTCACCACCACCACCACGCTTCGGTGACTTTGTG 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||::sargeteccaagaececegecegetegecetetresgestitesaggetegestegess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                376 ereccectracergasarcagecergedearterregedaagererregedaage 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142 ArgLeuGlySerSerLeu---ArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpAsnLeuGlySerAlaPhePheSerGlyThrlleileThrThrlleGlyTyrGly 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AsnileValLeuHisThrAspAlaGlyArgleuPheCysilePheTyrAlaLeuValGly 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                     69 LeuGjyGlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsnHisSerSerAla 88
                                                                                                                                                                                                                                                                                                                    68
                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                          GlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAspGlnPheLeuArg 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221 ProglyAspGlyThrGlyGlnAspSerProAla---TyrGlnProLeuValTrpPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240 IlebeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||| || |||||||||:::
ATCTACTTGGGGCTGGCCTGG-----CTGTCCCTTTTTGTCAACTGGAAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---GluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThrGlyThrValThrAla---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201 LeuGluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---ArgAlaValSerArgArgThrArgAla------
                                                                                                                                                                                                                                                                                                                                                                                                       211 GCAGGACAGGGT-----GTGGCCATCACAGGGAACCAGACCTTCAACAAC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                        49 AspHisProCysValSerGinLysSerLeuGluAspPheIleLysLeuLeuValGluAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----PheGlyMetLeuLeuAlaGlyValGlyAsp
                                                                                                                                                                                                 LeuLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPheGlnAlaLeuGlu
                                                                      3452
130
78
144
127
                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                        US-09-655-272-2 (1-398) x US-09-431-367B-1 (1-3452)
                                                                     7.39e-25
438.00
43.51%
27.20%
21.07%
; NAME/KEY: CDS
; LOCATION: (10)..(1506)
US-09-431-367B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            129 IleProLeu-
                                                                                                   Percent Similarity:
Best Local Similarity:
                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    748
                                                                                                                                                                                                                                                                                                                                                                                                                                            89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484
                                                                                                                                                                                                                                                                   29
                                                                                                                                                                                                                                                                                             16
                                                                                                                                  Query Match:
```

24

ò g ठे 셤

g

원 ò 원 ò g ð 셤

õ

```
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR FILING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 996
                                                                                                                                                                                       8.48e-25
427.50
51.79%
36.16%
                                                                                                                                                                                                                                              20.56%
                                                                                               ORGANISM: Homo sapiens
                                                                                                                                    (966) ..
                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
                                                                                                                         NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                Alignment Scores:
                                                                                                                                                    US-09-431-367B-6
                                                                                                                                                                                                                                                                                                                Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125
                                                                                   TYPE: DNA
                                                                                                                                                                                                                                              Query Match:
DB:
                                                                                                             FEATURE
                                                                                                                                                                                              ..
No..
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816
                                                                                                                        240
                                                                                                                                                                                                                                                            124
                                                                                                                                                                                                                                                                         576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValleuThrProThrPheValPheSerTyrMetGluSerTrpSerLysLeuGluAlaIle 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAlaValSerArg 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----ArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAla 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               817 GTATGTTCCTGCTGCCACCACACACACAAGAAGAACTTC------AAGTCC 861
                                                                    121 TGGACGCTGGAGGCCGCGCGCGCAGGACTCCAGCCGCAGCTTCCAGCGCGACAAGTGG 180
                                                                                                                                                                           Gredricaagearacaaaaceaaece.-----aecerecreaecaacaceaec
                                                                                                                                                                                                                                                                                                               AlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGly 144
                                                                                                                                                                                                                                                                                                                                                                    SerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLysTrpHisValPro 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCTGCTGCCACCGCTGCTCTTCTCCCACATGGAGGCTGGAGCTACACAGAGGCTTC 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGly 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                637 TACTTCGCCTTCATCACCCTCAGCACCTGGGGCTTCGGCGACTACGTGATTGGAATGAAC 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               697 cccrccchaaggraccchcrargrachaanaarargracccrargahiccrcririggs 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaserTrpThrGlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaPro 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----AGACAGGACCTGACCGG--- 888
                                           44
                                                                                               64
                                                                                                                                                    84
 ACCETGCTGCTGCTGGCC---TACCTGGCTTACCTGGCGCTGGGCACCGGCGTGTTC
                                                                                                              LeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsnSerAsn
                                                                                                                                                                                                                     GlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAspPheIleLysLeu
                                                                                                                                                                                                                                                           IleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyr
                                                                                                                                                                                                                                                                                                                                                                                                                        ProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGlyCysLeuLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrGlyGlnAsnSerProAla -- TyrGlnProLeuValTrpPheTrpIleLeuPheGly
                                        GlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAsp
                                                                                                                                                                                                      HisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThrIleIleThrThr
                                                                                                                                                                                                                                                                                                                                                                                   CATCTCATGCAGGGAGTAAACCACTGGGCCAGGCTGGGGGGCACCTGGCAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: CURLIS, ROLY A.J.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B
CURRENT FILING DATE: 1999-11-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      297 ProProGluLysGluGlnPro 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ввэ смессменстессте 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6, Application US/09431367B
Patent No. 6670149
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
US-09-431-367B-6
                                                                                                                                                                                                                                                                                      349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185
                                         25
                                                                                               45
                                                                                                                         181
                                                                                                                                                                             241
                                                                                                                                                                                                       85
                                                                                                                                                                                                                                                                                                                                                                    145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225
                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                               125
                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                              457
                                                                                                                                                                                                                                                                                                                                                                                                                          165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                         õ
                                                              임
                                                                                            ઠે
                                                                                                                    셤
                                                                                                                                                    ઠ
                                                                                                                                                                       ద
                                                                                                                                                                                                      δ
                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

```
185 ValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLysLeuGluAlaIle 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TGGACGCTGGAGGCCGCGCGCGCGAGACTCCAGCGCTTCCAGCGCGACAAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GAGCTGTTGCAGAACTTCACGTGTCTGGACCGCCCGGGGCTGGACTCGCTGATCCGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           105 IleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerSerLeuArgArgGly1leGlyHisIleGluAlaIlePheLeuLysTrpHisValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::::::::::|||::: ||| | ::: || | | | ::: | | | | | ::: | | | | | ::: | | | | | ::: | | | | | ::: | | | | | ::: | | | | ::: | | | | ::: | | | | ::: | | | | ::: | | | | ::: | | | ::: | | | ::: | | | ::: | | | ::: | | | ::: | | | ::: | | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | ::: | | ::: | ::: | | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeualaTyrPhealaSerValLeuThrThrIleGlyAsnTrpLeuArgAlaValSerArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25 GlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45 GlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAspPheIleLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 LeuValGluAlaLeuGlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 GTCGTCCAAGCATACAAAAACGGAGCC-----AGCCTCCTCAGCAACACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85 HisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThrIleIleThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289 AGCATGGGGGCTGGGAGCTCGTGGGCTCCTTCTTCTTTTCTGTGTGCACCATCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          409 GCCCTTGTGGGGATCCCACTCAACCTCGTGCTC------AACCGACTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGlyCysLeuLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                517 ccreacadecedestescréecesecreresecetriciteresésecreitérité
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        577 crecriecreccaccecrecrerrereccacardadesecredadecracacadadeserre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205 TyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225 ThrGlyGlnAsnSerProAla---TyrGlnProLeuValTrpPheTrpIleLeuPheGly
996
1111
48
1115
33
                                                                                                                                Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-655-272-2 (1-398) x US-09-431-367B-6 (1-996)
       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

24

44

180

240

64

288

84

348 124 408

104

456 164 516 184 576

144

989

224

```
----AGACAGGACCTGACCGG--- 1009
                                                                                                                                                                                                                                                                                                                                   244 LeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAlaValSerArg 263
                                                                                                                                                                                                                                                                                                                                                                                                  ---ArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAla 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                             938 GIATGITCCTGCTGCCACCACCACCTCTAAGGAAGACTTC------AAGTCC 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277 AlaserTrpThrGlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaPro 296
                                                                                                                                                                                     185 ValieuThrProThrPheValPheSerTyrMetGluSerTrpSerLysLeuGluAlalle 204
                                                                                                                                                                                                                                                                    145 SerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLysTrpHisValPro 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/09431367B

Sequence 4, Application US/09431367B

Barbent No. 6670104

GENERAL INFORMATION:
APPLICANT: Curtis, ROTY A.J.
APPLICANT: Curtis, ROTY A.J.
APPLICANT: Curtis, ROTY A.J.
TITLE OF INVERTION: UNDEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B

CURRENT FILING DATE: 1999-11-01

PRIOR FILING DATE: 1999-03-01

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Patentin Ver: 2.0
                                                                                205 TyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGly
                                                                                                                                                      cergacaagececederecergecegereragececetecreregedecrectecrefectre
                                                                                                                                                                                                       225 ThrGlyGlnAsnSerproAla---TyrGlnProLeuValTrpPheTrpIleLeuPheGly
                                                                                                                          ProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGlyCysLeuLeuPhe
AlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1575
111
48
115
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-655-272-2 (1-398) x US-09-431-367B-4 (1-1575)
                        1010 GAGCCAGAGTCCCACTCCCCA 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        297 ProproGluLysGluGlnPro 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .63e-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              427.50
51.79%
36.16%
20.56%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LOCATION: (122)..(1117)
US-09-431-367B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              983 CAAAGCTGG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 4
LENGTH: 1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-431-367B-4
                                                                                                                                                                 638
                                                                                                                                  165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.:
                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                         8 8
                                                                      à
                                                                                              g
                                                                                                                                  8
                                                                                                                                                           셤
                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                       Sequence 4, Application US/09561763

Sequence 4, Application US/09561763

Patent No. 6664373

GENERAL INFORMATION:

APPLICANT: CLUTE'S, NOYEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR

TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR

TITLE OF INVENTION: NOWEER: US/09/561,763

CURRENT APPLICATION NUMBER: US/09/561,763

PRIOR APPLICATION NUMBER: US/09/431,367

PRIOR APPLICATION NUMBER: US/09/259,951

PRIOR APPLICATION NUMBER: US/09/259,951

PRIOR PILING DATE: 01-01-1999

NUMBER OF SEQ ID NOS: 12

SEQ ID NO 4

SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lleglyTyrglyAsnIleValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyr 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :::|||:::|||
362 GTCGTCCAAGCATACAAAAAGGGAGCC-----AGCCTCCTCAGCAACACCACC 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242 TGGACGCTGGAGGCCGCGCGCGCGCGAACTCCAGCTTCCAGCGCGACAAGTGG 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuvalGlualaLeuGlyGlyalaAsnProGluThrSerTrpThrAsnSerSerAsn 84
                                                                                                      277 AlaSerTrpThrGlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaPro 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPhe 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25 GlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAsp 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45 GlnPheLeuArgAspHisProCysValSerGlnLysSerbeuGluAspPhelleLysLeu 64
           757 ATGGCATGGCTTGATCATCAAACTCATCCTCTCCCAGCTGGAGACGCCAGGGAGG 816
                                          817 GTATGTTCCTGCTGCCACACACTCTAAGGAAGACTTC-------AAGTCC 861
                                                                                                                                       ----AGACAGGGACCTGACCGG--- 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr1leIleThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1575
111
48
115
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-655-272-2 (1-398) x US-09-561-763-4 (1-1575)
                                                                                                                                                                                                       звэ слесской детсссистской эпо
                                                                                                                                                                         297 ProProGluLysGluGlnPro 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.63e-24
427.50
51.79%
36.16%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: (122)..(1117)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                               862 CAAAGCTGG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LOCATION: (1
US-09-561-763-4
                                                                                                                                                                                                                                           ULT 14
09-561-763-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                    264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
No..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Пр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                          g
                                                                                                                                                                             ò
                                                                                                                                                                                                         g
                                                                                셤
                                                                                                                à
                                                    Š
```

```
------AGACAGGGACCTGACCGG--- 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          410 AGCATGGGGCGCTGGAGGCTCGTGGCTCCTTCTTTTCTGTGTCCACCATCACCACC 469
                                                                                                                                                                                                                                                                                         105 IleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyr 124
                                                                                                                                                                                                                                                                                                           125 AlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGly 144
                                                                                                                                                                                                                                                                                                                                                                 225 ThrGlyGlnAsnSerProAla---TyrGlnProLeuValTrpPheTrp1leLeuPheGly 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :::|||:::||||
362 GTCGTCCAAGCATACAAAAACGGAGCC-----AGCCTCCTCAGGAACACCACC 409
                                                                                                                                                                                                                                  85 HisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThrIleIleThrThr 104
                                                                                                                                                                                                                                                                                                                                                                                                                            165 ProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGlyCysLeuLeuPhe 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGly 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      244 LeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAlaValSerArg 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --------ArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAla 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           938 GTATGTTCCTGCTGCCACCACACGCTCTAAGGAAGACTTC-------AAGTCC 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        277 AlaSerTrpThrGlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaPro 296
               242 TGGACGCTGGAGGCCGCGCGCGCGCAGCCGCAGCTTCCAGCGCGCGACAAGTGG 301
                                                                                                                                                                                                                                                                                                                                                                                                            145 SerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLysTrpHisValPro 164
 24
                                                       25 GlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAsp 44
                                                                                                               45 GlnPheleuArgAspHisProCysValSerGlnLysSerLeuGluAspPhelleLysLeu 64
                                                                                                                                                                         65 LeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsn 84
ThrLeuLeuAlaLeuAlaLeuValLeuLeuTyrLeuValSerGlyAlaLeuValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1010 GAGCCAGAGICCCACICCCCA 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     983 CAAÁGCTGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297 ProProGluLysGluGlnPro 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                           염
                                                                                                               ò
                                                                                                                                         d
                                                                                                                                                                       ò
                                                                                                                                                                                                                                 ર્જ
                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                         ò
                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

Search completed: February 3, 2005, 03:48:41 Job time : 119.273 secs

THIS PACE LEFT DAM

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

```
February 3, 2005, 01:34:36 ; Search time 697.536 Seconds
(without alignments)
3278.486 Million cell updates/sec
nucleic search, using frame_plus_p2n model
OM protein
                                                   Run on:
```

1 MRSTTLLALLALVLLYLVSG.....SKKPSRPRGPGRLRDKAVPV 398 4300275 segs, 2872944193 residues BLOSUM62 Xgapop 10.0, Xgapext Ygapop 10.0, Ygapext Fgapop 6.0, Fgapext Delop 6.0, Delext US-09-655-272-2 2079 Perfect score: Scoring table: Sequence: Searched:

fotal number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

summaries Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 su

Command line parameters:
-MODBL=frame+ p2n.model -DEV=xlh
-Q=/Cgn2 1/USPTO_spool/US09655272/runat_02022005_141716_6827/app_query.fasta_1.1102
-Q=/Cgn2 1/USPTO_spool/US09655272/runat_0202005_141716_6827/app_query.fasta_1.1102
-DB=Published Applications NA -QFMT=fastap -SUPFIX=rnpb -MINMATCH=0.1
-LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62
-TRAMS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=10
-THR MIN=0 -ALIGN=15 -MODB=LOCAL -OUTFMT=cb -NORM=ext -HEAPSTZB=500 -NINLEN=0
-MAXIEN=2000000000 -USER=US09655272_@CGN 1 1 626_@runat_0202005_141716_6827
-NCPU=5 -LICPUE3 -NO MAAP -LARGEQUERY -NGS_GCORES=0 -WAIT_-DSPBLOCK=100
-LONGLOG -DEV TIMEOTT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPDEXT=0.5
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database

/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:

Sequence 195, App Sequence 195, App Sequence 28, App Sequence 1, Appli Sequence 2, Appli Sequence 3, Appli Sequence 2, Appli Sequence 2, Appli Sequence 45, Appli Sequence 42, Appli A Sequence 42355, A Sequence 42355, A Sequence 302450, Sequence 302450, Sequence 30, Appl Sequence 45, Appl Sequence 20, Appl Sequence 12, Appl Sequence 13, Appl Sequence 11, Appl Sequence 11, Appl Sequence 30, Appl Sequence 30, Appl Sequence 30, Appl Sequence 83143, A Sequence 83143, A Sequence 15, Appl Sequence 3, Sequence 1, Sequence 5, Sequence Sequence 14 US-10-243-035-1 15 US-09-828-035-1 15 US-10-345-680-45 16 US-10-345-680-45 17 US-10-345-680-45 18 US-10-345-680-45 19 US-09-828-035-1 19 US-09-828-035-1 19 US-09-828-035-1 19 US-09-828-035-1 19 US-10-312-391-391-39 10 US-09-747-8358-28 10 US-09-747-8358-38 11 US-09-747-8358-38 12 US-10-312-312-30 13 US-09-828-36-1 14 US-09-828-36-1 15 US-09-828-36-1 16 US-09-82-386-34 17 US-09-828-36-1 18 US-09-828-36-1 19 US-09-828-36-1 10 US-09-828-38-38-3 10 US-09-10-31 10 US-09-828-36-1 10 US-09-828-36-1 10 US-09-828-36-1 10 US-09-828-36-1 10 US-09-828-36-1 10 US-09-828-38-38-3 10 US-09-828-38-3 10 US-09-828-3 10 US-09-828-3 10 US-09-828-3 10 US-09-828-3 10 US-09-Length 23.6 23.6 23.6 23.6 23.6 23.6 23.6 497 491.5 490.5 490

Sequence 1, Application US/10243035
Publication No. US20030049697A1
Sequence 1, Application No. US20030049697A1
GENERAL INFORMATION:
APPLICANT: LAZDUNSKI, MICHEL
APPLICANT: LAZDUNSKI, MICHEL
APPLICANT: LAZDUNSKI, MICHEL
APPLICANT: MINGRET, FRANCOIS
TITLE OF INVENTION: NEW FAMILY OF MECHANOSENSITIVE HUMAN POTASSIUM CHANNELS
TITLE OF INVENTION: ACTIVATED BY POLYUNSATURATED FATTY ACIDS AND THEIR USE
FILE REFERENCE: 1317-02
CURRENT APPLICATION NUMBER: US/10/243,035
CURRENT PILING DATE: 2002-09-13
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PALENTIN Ver. 2.1
SEQ ID NO 1. TYPE: DNA ORGANISM: Homo sapiens FEATURE: NAME/KEY: CDS LENGTH: 1182

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

```
1005
                                                                                                                                                                           1125
                                                                                                  360
                                                                                                                                                   380
                                               340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09628035;
Fatent No. US20020034781A1
GENERAL INFORMATION:
APPLICANT: Gluckmann, Maria A.
TITLE OF INVENTION: 12303, A NOVEL HUMAN TWIK MOLECULE AND USES THEREOF;
FILE REFERENCE: MNI-142
CURRENT APPLICATION NUMBER: US/09/828,035
CURRENT FILING DATE: 2001-04-06
PRIOR FILING DATE: 2001-04-07
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 3
LENGTH: 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCCCAGAGGAGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 PhelleLysLeuLeuValGluhlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                             946 AGGCCCCGAICCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCCCCGCCCACGGCCTCG
                                                                                                                                                   GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgArgArgBroAsnProSerLys
                                                                                                                                                                     1116 GAGCGCGCTGCCCGCTGCCCCGCGCCGAGAGGTCGCCGCCCCCAAATCCCCCCAGG
GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                     ------crecerceaccecerecaeceaeceaeceredec
                                               321 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                 1126 AAGCCCGTGCGGCCCCGGGCCCCCGGACAAAGGCGTGCCGGTG 1179
                                                                                                                                                                                                    381 LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1257
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-2 (1-398) x US-09-828-035-3 (1-1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.5e-142
1692.50
88.44%
82.41%
81.41%
                         898 GAGCAGCCACTG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1257)
US-09-828-035-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                         RESULT 2
US-09-828-035-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
 301
                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                        셤
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                      g
                                                                                                ò
                                                                                                                        셤
                                                                                                                                                    8
                                                                                                                                                                                                     à
                  셤
                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValserarghrgThrargAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                     AspargleuglySerSerLeuargargGlylleGlyHislleGlualarlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ileileThrThrileGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CysílePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TrpH.svalproProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 777
                                                                                                                                                                                                                                    297
                                                                                                                                                                                                                                                                                                                                                                                                                                                 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                     40
                                                                                                                                                                    20
                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                    41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                   241 AGCAACAGCAC---TCAGCCTGGACCTGGGACCTCTTTTTTTTTCAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                       MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuTyrLeuValSerGly
                                                                                                                                                                                 ATGCGCAGCACCACCCTCCTGGCCTGCTGGCTCTTGCTTTACTTGGTGTCTGGT
                                                  1182
328
24
41
5
                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                           US-09-655-272-2 (1-398) x US-10-243-035-1 (1-1182)
                                          3.24e-142
1692.50
88.44%
82.41%
81.41%
  ; LOCATION: (1)..(1179)
US-10-243-035-1
                                                                              Percent Similarity:
Best Local Similarity:
                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      418 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      281
                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                       Query Match:
DB:
                                                      . No. :
```

원

8 ద

6666

ò ద õ q à

6 6 6

6 6 6

g

ò

à

8 6 8

258

g ò q ò

80

138

20

40

198

9

В

ઢ

8 6

ò 셤 g ઠે 셤

ò

원

8 셤 8

ઠે

셤

ઠે a Š 유

g

ò

```
79 ATGCGCAGCACCACCCTCCTGCCCGCCGCTGGTCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199 GAGGTCCGAGAGAGATTCCTGAGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1257
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-2 (1-398) x US-10-146-733-30 (1-1257)
                                                        PRIOR PLING DATE: 2000-02-29
PRIOR PLING DATE: 2000-02-29
PRIOR PLING DATE: 2000-02-29
PRIOR PLING DATE: 2000-02-03
PRIOR PLING DATE: 2000-03-03
PRIOR PLING DATE: 2000-04-07
PRIOR PLING DATE: 2000-04-11
PRIOR PLING DATE: 2000-04-12
PRIOR PLING DATE: 2000-09-19
PRIOR PLING DATE: 2000-09-19
PRIOR PLING DATE: 2000-09-19
PRIOR PLING DATE: 2000-09-25
PRIOR PLING DATE: 2000-09-25
PRIOR PLING DATE: 2000-09-25
PRIOR PLING DATE: 2000-12-16
PRIOR PLING DATE: 2000-12-17
PRIOR PLING DATE: 2000-12-17
PRIOR PLING DATE: 2000-12-17
PRIOR PLING DATE: 2001-02-25
PRIOR PLING DATE: 2001-02-25
PRIOR PLING DATE: 2001-02-25
PRIOR PLING DATE: 2001-02-25
PRIOR PLING DATE: 2001-04-11
PRIOR PLING DATE: 2001-04-11
PRIOR PLING DATE: 2001-04-11
PRIOR PLING DATE: 2001-04-11
PRIOR PLING DATE: 2001-09-25
PRIOR PLING DATE
                               APPLICATION NUMBER: US 60/185,938 FILING DATE: 2000-02-29 APPLICATION NUMBER: US 09/515,520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.5e-142
1692.50
88.44$
82.41$
81.41$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..(1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , LOCATION: (1)
US-10-146-733-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NGS-10-146-733-30
Sequence 30, Application US/10146733
Sequence 30, Application No. US20030165891A1
Sequence 30, Application No. US20030165891A1
SEQUENCE OF USE OF SEQUENCE OF SEGUENCE O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAGCCACTG------CTGCCTCCACGCCCTGTCCAGCGCAGCCGCTGGGC 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
   120
                                                                      435
                                                                                                                                                                                                     495
                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaLeuAspTyrProSerGluAsnLeuAlaPheileAspGluSerSerAspThrGlnSer 360
CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                      CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                        AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGGCGCGGACCCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                     recarcititarececreeresearrececreirresearceracreseases
                                                                                                                                                                                                                                                                                                                                           GACCGGCTGGGCTCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                              TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CysleuleuPheValleuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGTCCCGCCGCACTCGGCCAGAGATGGGCGCCTCACGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/146,733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1144
   101
                                                                      376
                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                         121
                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
```

138

용

유 ò

ઠે

셤

8

g

ઠ

40

```
GENERAL INFORMATION:

APPLICANT: Milenmium Pharmaceuticals, Inc.
APPLICANT: Milenmium Pharmaceuticals, Inc.
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
TITLE OF INVENTION: 1203, 985, 1327, 13601, 18926, 318, 2058 OR 6351 MOLECULES.
TITLE OF INVENTION: 1203, 985, 1327, 13601, 18926, 318, 2058 OR 6351 MOLECULES.
TITLE OF INVENTION: 1203, 985, 1327, 13601, 18926, 318, 2058 OR 6351 MOLECULES.
TITLE OF INVENTION NUMBER: US/10/345,680
CURRENT APPLICATION NUMBER: US/0340,510
PRIOR APPLICATION NUMBER: US 60/346,511
PRIOR PILING DATE: 2002-01-18
PRIOR PILING DATE: 2002-04-19
PRIOR PILING DATE: 2002-04-19
PRIOR PILING DATE: 2002-09-27
PRIOR PELING DATE: 2002-09-27
PRIOR PELING DATE: 2002-09-27
PRIOR PELING DATE: 2002-10-21
PRIOR PELING DATE: 2002-10-21
PRIOR PELING DATE: 2002-10-21
PRIOR PELING DATE: 2002-11-26
PRIOR PELING DATE: 2002-11-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluGlnProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProFroGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CysilePheTyralaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                              TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                      675
                                             318
                                                                           100
                                                                                                       375
                                                                                                                                     120
                                                                                                                                                     615
                  80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValSerArghrgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                CysLeuLeupheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                          61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                          llelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                     52
                                                                                 81
                                                                                                               319
                                                                                                                                             101
                                                                                                                                                                       376
                                                                                                                                                                                                     121
                                                                                                                                                                                                                                 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            중 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                            8 6
                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                         g
                                                                                                                                ઠે
                                                                                                                                                                 g
                                                   셤
                                                                                    ò
                          ઠ
```

```
100
                                                                                                                                                                                                                                                                                   375
                                                                                                                                                                 318
                                                                                                                                        138
                                                                                                                                                        40
                                                                                                                                                                                            9
                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                        81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                                                                                                                                               PhelleLysLeuLeuValGluAlaLeuGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                           41 HisGlyArgAspGlnPheleuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                        21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLyBLyBMetAsp
                                                          Conservative:
Mismatches:
Indels:
                                                                                                      x US-10-345-680-45 (1-1260)
                                          Length:
Matches:
                                          3.51e-142
1692.50
88.44%
82.41%
81.41%
       ... (1260)
                                                                                                         US-09-655-272-2 (1-398)
                                                            Percent Similarity:
Best Local Similarity:
; NAME/KEY: CDS
; LOCATION: (1)
US-10-345-680-45
                                     Alignment Scores:
Pred. No.:
                                                                                                                            н
                                                                                                                                             19
                                                                                                                                                                                139
                                                                                                                                                                                                                                     61
                                                                               Query Match:
DB:
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                           8
```

; Sequence 45, Application US/10345680 ; Publication No. US20030148394A1

US-10-345-680-45

g

ò පු g

ઠે

g

ઠે

g

ઠે

g

ò

음

ò

В

ઠે

a

ઠે

셤

ò

8

요 ઠે

셤

ò

셤 ઠે

ઠે

```
101 IlellerhrihrileGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgleuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspargLeuGlySerSerLeuArgArgGly11eGlyHis1leGluAla11ePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199 GAGGTCCGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CysilePheTyrAlaLeuValGly1leProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See File Wrapper or PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           x US-10-391-399-20 (1-1260)
CURRENT FILING DATE: 2003-03-18
PRIOR APPLICATION NUMBER: US 09/789,481
PRIOR FILING DATE: 2001-02-20
PRIOR PILING DATE: 2001-02-20
PRIOR PILING DATE: 2000-08-08
PRIOR PILING DATE: 2000-05-31
PRIOR PILING DATE: 2000-05-31
PRIOR PILING DATE: 2000-02-22
PRIOR PILING DATE: 2000-02-22
PRIOR PILING DATE: 2000-02-22
PRIOR PILING DATE: 2000-03-04
PRIOR PILING DATE: 2001-20-04
PRIOR PILING DATE: 2001-12-04
PRIOR PILING DATE: 2001-12-04
PRIOR PILING DATE: 2001-12-04
PRIOR PILING DATE: 2001-13-04
PRIOR PILING DATE: 2001-13-15
PRIOR PILING DATE: 2001-03-08
PRIOR PILING DATE: 2001-03-08
PRIOR PILING DATE: 2001-03-12
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-07
PRIOR PILING DATE: 2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.51e-142
1692.50
88.44%
82.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ... (1260)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; NAME/KEY: CDS
; LOCATION: (1)
US-10-391-399-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20, Application US/10391399
Publication No. US20030219806A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Glucksmann, Maria Alexanndra
APPLICANT: Curta, Jose M.
APPLICANT: Lora, Jose M.
APPLICANT: APPLICANT: Silos-Santiago, Inmaculada
TITLE OF INVENTION: NOVEL 18607, 15603, 69318, 12303, 48000,
TITLE OF INVENTION: NOVEL 18607, 15603, 69318, 12303, 52991, 59914, 59921
TITLE OF INVENTION: AND 33751 MOLECULES AND USES THEREFOR
FILE REFERENCE: MP103-0200MNIM;
CURRENT APPLICATION NUMBER: US/10/391,399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                    160
                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                            615
                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                     675
                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                      495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCGCGCTGCCCCCTGCCCCGCCCGAGAGGTCGCCCCCCGAAATCCCCCCAGG
                                                                                                                                                              TGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGGATGCTTTTCCTGCTGATCGGC
                                                                                                                                                                                                                                                                                                                                                  CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCACCACGGAAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                           CysilePheTyralaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                        AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlailePheLeuLys
                                                                                                                                                                                                                            TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                          CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                        TGCATCTTCTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGTCCCGCCGCACACAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-391-399-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1204
                                                                                      436
                                                                                                                                                                               496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                             121
                                                                                                                                      141
                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
```

120

435 140 495

375

100

318

258

```
US-09-655-272-2 (1-398)
                Percent Similarity:
Best Local Similarity:
Scores
                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                        879
                                                                                                                                                                                                                                                                                                                                                                               939
                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                402
                                                                                                                                                                                       459
                                                                                                                                                                                                               519
                                                                                                                             61
                                                                                                                                                                            101
                                                                                                                                                                                                   121
                                                                    162
                                                                                           222
                                                                                                                                                     81
                                                                                21
                       Best Local Sig
Query Match:
DB:
Alignment :
Pred. No.:
      ..
Ю
                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                              DB
DB
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                  ∂
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                           q
                                                                                                                                                                                                                          ઠે
                                                                                                                         8 8 8
                                                                                                                                                             셤
                                                                                                                                                                         ð
                                                                                                                                                                                      임
                                                                                                                                                                                                   8
                                                                                                   $ B
                                                                 g
                                                                                8
                                                                                         g
                                                      .8
                                                                                                                                                                                                                                                                                                  US-09-828-035-1
US-09-828-035-1
Sequence 1, Application US/09828035
Sequence 1, Application US/09828035
PATENT ON US2002034781A1
GENERAL INFORMATION:
TITLE OF INVENTION: 12303, A NOVEL HUMAN TWIK MOLECULE AND USES THEREOF
TITLE OF INVENTION: 12303, A NOVEL HUMAN TWIK MOLECULE AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/828,035
CURRENT PILING DATE: 2001-04-06
PRIOR FILING DATE: 2000-04-07
NUMBER OF SEQ ID NOS: 3
SOFWARE: PATENTIN VET: 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                  GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                             GluGinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                           220
                                                                      735
                                                                                  240
                                                                                            795
                                    200
                                               675
                        615
                                                                                                                                                                                                                                                         CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                         196 GACCGGCTGCGCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
             TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIeGly
                  Lysproserhrgproargglyproglyargleuargasplysalavalproval 398
                                                                                                                                                                                                                                                                                                                                                                                                            ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (84)..(1340)
US-09-828-035-1
                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                341
                                                                                                                                               928
                                                                                                                                    261
                                                                                                                                                                      916
                                                                                                                                                                                  301
                                                                                                                                                                                             916
                                                                                                                                                           281
                                                                                                             241
                                                                                                                        961
                                        181
                                                   919
                                                               201
                                                                          919
                161
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                              ò
                                      gg
                                                                                                                                                                                                                               Š
                                                                                                                                            Ω
                                                                                                                                                           상
업
                                                                                                                                                                               ò
                                                                                                                                                                                           g
                                                                                                                                                                                                     ð
                상 원
```

```
320
                                                                                                                                                                                                                                                                                                                 261 ValSerargargthrargalaGluMetGlyGlyLeuThralaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                               818
                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                   878
                                                                                                                                                                                                                                                                                             260
                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                          758
                                                                                                                                                                                         160
                                                                                                                                                                                                  638
                                                                                                                                                                                                             180
                                                                                                                                                                                                                      698
                                                                                                                                                120
                                                                                                                            100
                                                                                                                                      458
                                                                          281
                                                                                                                 401
                                                     221
                                                                                   9
                                                               40
                                                                                                                                                                                                                                                                                                                                      281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLyS
                                                                                                                                                                                                                                GluginProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                  Cys11ePheTyzAlaLeuValGly11eProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                          282 GAGGTCCGAGAGATTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGGACTGGGCCTC
                                                                                                        PheilelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                            1408
328
24
41
5
Length:
Matches:
Conservative:
Mismatches:
Indels:
                                   x US-09-828-035-1 (1-1408)
      1692.50
88.44%
82.41%
81.41%
```

ద

ઢ

셤

ઠ

g

8

d

Š

```
100
                                                                                                                                                                                                                                                                                                                                                        458
                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                             518
                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280
                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                    282 GAGGTCCGAGAGAGATTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC
                                                                                                                                                                                                                                                                                                         759 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAACTGGCTGCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                         162 ATGCGCAGCACCACGCTCCTGGCCCTGCTGGTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                                                          41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                              61 PhelleLysLeuLeuValGluhlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                     81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                               101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                    CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                           519 TGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       579 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                               MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                          1408
328
24
41
5
                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                            US-09-655-272-2 (1-398) x US-10-146-733-28 (1-1408)
                                                                                          4.02e-142
1692.50
88.44%
82.41%
81.41%
               ; TYPE: DNA
; ORGANISM: Homo sapiens
; FRATURE:
; NAME/KEY: CDS
; LOCATION: (84)..(1340)
US-10-146-733-28
                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
        1408
                                                                                 Alignment Scores
SEQ ID NO 28
LENGTH: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             819 (
                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                            Pred. No.:
                                                                                                     Score:
                                                                                                                                                                                               g
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                               à
                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                       380
       GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                                                                                      PRIOR FILING DATE: 2001-09-25
PRIOR APPLICATION NUMBER: US 10/024,623
PRIOR FILING DATE: 2001-12-17
NUMBER OF SEQ ID NOS: 85
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                             Sequence 28, Application US/10146733 Publication No. US20030165891A1 GENERAL INFORMATION:
                                                                                                                                                                                                           APPLICANT: Curtis, Rory A.J.
APPLICANT: Glucksmann, Maria A.
                                                                                                                                                                     US-10-146-733-28
                                                              1167
                          1107
                                                                                 361
                                                                                                    1227
        321
                                             341
                                                                                                                                                             RESULT
```

us-09-655-272-2.rnpb

```
1692.50
88.44%
82.41%
81.41%
, LOCATION: (84)...(1343)
US-10-352-684A-7
                          Percent Similarity:
Best Local Similarity:
             Alignment Scores
                                                                                                                                                                                                                   181
                                                                                                                                                                                                                           669
                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                            759
                                                                                                                                                                                                                                                              819
                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                              879
                                                                                                                                                                                                                                                                                                939
                                                                                                                                                                                                                                                                                                        281
                                                                                                   282
                                                                                                                                     402
                                                                                                                                              101
                                                                                                                                                       459
                                                                                                                             81
                              Best Local S
Query Match:
DB:
                  ..
No
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                          셤
                                                                                                                                                                      g
                                                                                                                                                                                8
                                                                                                                                                                                        엄
                                                                                                                                                                                                  Š
                                                                                                                                                                                                        g
                                                                                                                                                                                                                  ò
                                                                                                                                           장염
                                                                                                                                                                Ś
                                                                                                 g
                                                                                                           ઠે
                                                                                                                  g
                                                                                                                           Š
                                                                                                                                    셤
                                                                         ð
                                                                                  g
                                                                                        8
                                                                                                                         1227 GAGGGGGGGTGCCCGCGCGCGCGGGGCGAGGTCGCCGCCGCAAATCCCCCCAGG 1286
                                                     1166
                                                             340
                                                                               GluargGlyCysalaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
          GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGlulys 300
                            320
 GIGICCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGCCTCAGGCTGCCAGCTGGACT 998
                           GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                            ArgproGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                  TYPE: DNA
ORGANISM: Homo Sapiens
FEATURE:
NAME/KEY: CDS
                                                321
                                                                         1167
                                       1059
                                                        1107
                                                                 341
                                                                                  361
                     999
                              301
             281
                                                                                                           셤
                                                                       g
                                                                                  à
                                                                                        셤
                                                                                                   ð
                    유
당
당
                                             $ 8 $
             ò
```

```
1058
                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                           998
                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                  758
                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                         818
                                                                                                                                                                                     140
                                                                                                                                                                                                          180
                                                                                                                                                                                                                                            698
                                                                                                                                        100
                                                                                                                                                   458
                                                                                                                             401
                                                          221
                                                                                                       341
                                                                      40
                                                                                                                                                                                                                                                                                                                          GlyThrvalThrAlaArgValThrGlnArgThrGlyProSerAlaProProBroGluLy8
                                                                                                                                                                                                                                                                                                                                                                            221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                          161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                       GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTC
                                                                                                                 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                      MetargserThrThrLeuteuAlaLeuleuAlaLeuValLeuVeuTyrLeuValSerGly
           Conservative:
                                      US-09-655-272-2 (1-398) x US-10-352-684A-7 (1-1408)
                Mismatches:
Length:
Matches:
                      Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                     666
                                                                                                                                                                                                                                                                                                                                                                                   g
```

us-09-655-272-2.rnpb

Best Local Similarity: 82.41% Mismatches: 41 Query Match: 81.41% Indels: 5 DB: 2	US-09-655-272-2 (1-398) x US-10-391-399-18 (1-1408) Qy 1 MetArgSerThrThrLeuleuAlaLeuLeuAlaLeuValLeuValSerGly 20	Db 162 ATGCGCACCACGCTCCTGGCGCTGCTGGTTTTTTTTTTT	222 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCCCCAGGGAGGAGCTGGGG	<pre>Qy 41 HisGlyArgAspGlnPheLevArgAspHisProCygValScrInLysSerLeuGluAsp 60 Db 282 GAGGTCCGAGAGAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGTTGGGCCTC 341</pre>	Qy 61 PheilelysLeuLeuValGluAlaLeuGlyGlyAlaAsnProGluThrSerTrpThr 80	Oy 81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr 100 100 <td colspan<="" th=""><th>Qy 101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120 </th><th><pre>Qy 121 CysIlePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140 </pre></th><th>Qy 141 AspargleuGlySerSerLeuargArgGlyIleGlyHisIleGlualaIlePheLeuLys 160 </th><th>Qy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180 </th><th>Qy 181 CysLeuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200 </th><th>Oy 201 LeuGlualaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220 </th><th>Qy 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240 </th><th>Oy 241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260 </th><th>Oy 261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280 </th><th>Oy 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaBroProBroGJuLys 300 </th><th>Oy 301 GluGinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320 </th><th>Qy 321 ArgProGlySerProAlaGluLysValGluThrProSerProProThrAlaSer 340 </th></td>	<th>Qy 101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120 </th> <th><pre>Qy 121 CysIlePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140 </pre></th> <th>Qy 141 AspargleuGlySerSerLeuargArgGlyIleGlyHisIleGlualaIlePheLeuLys 160 </th> <th>Qy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180 </th> <th>Qy 181 CysLeuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200 </th> <th>Oy 201 LeuGlualaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220 </th> <th>Qy 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240 </th> <th>Oy 241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260 </th> <th>Oy 261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280 </th> <th>Oy 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaBroProBroGJuLys 300 </th> <th>Oy 301 GluGinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320 </th> <th>Qy 321 ArgProGlySerProAlaGluLysValGluThrProSerProProThrAlaSer 340 </th>	Qy 101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120	<pre>Qy 121 CysIlePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140 </pre>	Qy 141 AspargleuGlySerSerLeuargArgGlyIleGlyHisIleGlualaIlePheLeuLys 160	Qy 161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180	Qy 181 CysLeuleuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200	Oy 201 LeuGlualaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal 220	Qy 221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240	Oy 241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260	Oy 261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280	Oy 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaBroProBroGJuLys 300 	Oy 301 GluGinProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320	Qy 321 ArgProGlySerProAlaGluLysValGluThrProSerProProThrAlaSer 340
Qy 301 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320	Oy 321 ArgproGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340	Qy 341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSer 360	361 GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380		Db 1287 AAGCCCGTGCGCCCCCGGGCCTCCCCGAACAAGGCGTGCCGGTG 1340 RESULT 9	US-10-391-399-18 Sequence 18, Application US/10391399 Publication No. US20030219806A1 GENERAL INFORMATION:	; APPLICANT: Milennium Pharmaceuticals, inc.; APPLICANT: Glucksmann, Maria Alexanndra; APPLICANT: Curtis, Rory A. J. APPLICANT: Lora, Jose M.	; APFLICANT: GAILYIN, MACHERINE M.; APFLICANT: Silos-Santiago, Inmaculada ; TITLE OF INVENTION: NOVEL 18607, 15603, 69318, 12303, 48000, ; TITLE OF INVENTION: 52920, 5433, 38554, 57301, 58324, 55063, 52991, 59914, 59921	; TILLE REFERENCE: MPIO3-0200NNIM; FILE REFERENCE: MPIO3-0200NNIM; CURRENT APPLICATION NUMBER: US/10/391,399; CURRENT FILING DATE: 2003-03-18	FRIOR PELLING DATE: 2001-02-20; PRIOR PILING DATE: 2001-02-20; PRIOR APPLICATION NUMBER: US 09/634,669; PRIOR APPLICATION NUMBER: US 09/634,669;	FRIOR FILING DATE: 2000-05-31 PRIOR FILING DATE: 2000-05-32 PRIOR APPLICATION NUMBER: US 09/510,706 PRIOR FILING DATE: 2000-02-22	; FRIOR FILING DATE: 2002-12-04; PRIOR FILING DATE: 2002-12-04; PRIOR APPLICATION NUMBER: US 60/336,936; PRIOR FILING DATE: 2001-12-04; PRIOR FILING DATE: 2001-12-04	FRIOR FILING DATE: 2002-03-08 PRIOR FILING DATE: 2002-03-08 PRIOR APPLICATION NUMBER: US60/275,078 PRIOR FILING DATE: 2001-03-12		; Kemaining Filos Application data removed - See File Wrapper or FALM.; NUMBER OF SEQ ID NOS: 127; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 18	; TENGTH: 1408 ; TYBE: DNA ; ORGANISM: Homo sapiens ; FEATURE: ; NAME/KEV:	4)(1343)	Alignment Scores: Pred. No.: 4.02e-142 Length: 1408 Score: 1692.50 Matches: 328 Percent Similarity: 88.44\$ Conservative: 24	

545

180 665 200 725

```
GluargGlyCysalaLeuBroArgAlaBroArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyThrvalThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLy8
                                                                                                                                                                                                                                                                                                                                                                                                                                    LeupheGlyLeualaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuargAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgprodlyserProAlaProAlaGluLysValGluThrProSerProFroThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                               CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                   AspargLeuGlySerSerLeuArgargGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                         TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
               81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                     PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                     101
                                                                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                                                                                                              909
                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                            61
                                                                                                                                           369
                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                    161
                                 49
                                                                                      309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                     셤
                                                                                                                                                                     8 8
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                             $ 8 $
                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                        $ A
                                                                                                                Š
                                                                                                                                                                                          RESULT 10
US-10-68-158-11
Sequence 11, Application US/10768158
Publication No. US20040204359A1
Sequence 11, Application US/10768158
Publication No. US20040204359A1
Sequence 11, Application No. US20040204359A1
Sequence 11, Application No. US20040204359A1
Septiment No. No. US2004020436A1
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Silos-Santiago, Inmaculada
APPLICANT: Riadof, Scott D.
TITLE OF INVENTION: MATOR PAIN AND PAINFUL DISORDERS USING 16386, 15402, 21165, 1423,
TITLE OF INVENTION: 636, 12303, 21425, 27410, 38554, 38555, 55063, 57145, 59914,
TITLE OF INVENTION: 636, 12303, 21425, 27410, 38544, 38555, 55063, 57145, 59914,
TITLE OF INVENTION: 17827 OR 32620
FILE REFERENCE: MPIO3-012PIRNOMNIM
CURRENT FILING DATE: 2004-01-30
PRIOR APPLICATION NUMBER: US 60/444,781
PRIOR FILING DATE: 2003-03-13
PRIOR FILING DATE: 2003-03-13
PRIOR FILING DATE: 2003-03-6-16
PRIOR FILING DATE: 2003-03-6-16
PRIOR FILING DATE: 2003-03-6-16
PRIOR FILING DATE: 2003-03-6-16
PRIOR PRIOR APPLICATION NUMBER: US 60/491,048
PRIOR FILING DATE: 2003-03-6-16
PRIOR FILING DATE: 2003-03-6-16
PRIOR FILING DATE: 2003-03-6-16
PRIOR PRIOR APPLICATION NUMBER: US 60/491,048
PRIOR FILING DATE: 2003-03-6-16
PRIOR PRIOR APPLICATION NUMBER: US 60/491,048
PRIOR FILING DATE: 2003-03-6-16
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR APPLICATION NUMBER: US 60/491,048
PRIOR PRIOR APPLICATION NUMBER: US 60/491,048
PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR OF SEQ IO NOS-04-6-16
PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR PRIOR DATE: 2003-03-13
PRIOR PRIOR DATE: 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgProAsnProSerLyS
                                                                                             LysproserArgbroArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2747
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-2 (1-398) x US-10-768-158-11 (1-2747)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo Sapiens
FRATURE:
NAWE/KEY:
LOCATION: (51)...(1310)
FRATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(2747)
OTHER INFORMATION: n = A,T,C Or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.17e-142
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 2747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                        1167
                                                                                                             1227
                                                                                 361
                                                                                                                                        381
                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                    원
                                                                                                                                     $ B
                                                   ద
                                                                                   ò
                               8
```

220 785 240 845 1025

300

905

1073

340

320

1193

360

```
979 GOCACAGTGACAGCGCGCGTGACCCAGCGAGCCGGGCCGCCGCCCCCCCGCCGGCGGAAG 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                    558
                                                                                                                                                             160
                                                                                                                                                                                                      618
                                                                                                                                                                                                                                                                                     678
                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                     738
                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                       798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys 300
120
                                      498
                                                                               140
                                                                                                                                                                                                                                            161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                         CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGGCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              341 AlaLeuAspTyrProSerGluAsnLeuAlaPhelleAspGluSerAspThrGlnSer
                                                                                                                                                             AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                619 TGGCACGTGCCACCGGAGCTAGTAAGTGCTGTCCGCGATGCTTTTCCTGCTGATCGC
                                                                                                                                                                                                                                                                                                                                                                                                        LeuGluAlaileTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999 GCCGGCGCGGACCCCCAGGCAGGACTCCCCCGGCCTATCAGCCGCTGGTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919 GTGTCCCGCCGCACTCGGCCAGAGATGGGCGCCCTCACGCTCAGCTGCCAGCTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
101 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                         CysleuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgProGlySerProAlaProAlaGluLy8ValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCCCGTGCGGCCCCGGGCCCCCGAGACAAAGGCGTGCCGGTG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-147-835A-30
| Sequence 30, Application US/09747835A
| Patent No. US20020146692A1
| GENERAL INFORMATION:
| APPLICANT: Yamazaki, Victoria
| APPLICANT: Tang, Y. Tom
| APPLICANT: Thu, Chenghua
| APPLICANT: Mang, Dunrui
| APPLICANT: Rang, Jie
| APPLICANT: Rang, Aie
| APPLICANT: Rang, Aie
| APPLICANT: Ren, Feiyan
| APPLICANT: Asundi, Vinod
                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                       619
                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                         739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381
                                셤
                                                                               ò
                                                                                                           쉽
                                                                                                                                                        Š
                                                                                                                                                                                               셤
                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                          장. 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                GRENEAL INFORMATION:
GRENEAL INFORMATION:
GRENEAL INFORMATION:
GRENEAL INFORMATION:
APPLICANT: Silos-Santiago, Inmacquiada
APPLICANT: Silos-Santiago, Inmacquiada
APPLICANT: Silos-Santiago, Inmacquiada
TITLE OF INVENTION: WETHORS AND COMPOSITIONS FOR TREATING
TITLE OF INVENTION: WETHORS AND COMPOSITIONS TO SILOS, 555, 302, 323,
TITLE OF INVENTION: URCOGICAL DISORDERS USING 1435, 559, 318, 2058 OR 6351 MOLECULES.
TITLE OF INVENTION: URDER: 1200, 55089, 12407, 46656, 62553, 302, 323,
TITLE OF INVENTION: URDER: US 60, 55080, 2400, 18926, 318, 2058 OR 6351 MOLECULES.
TITLE OF INVENTION: UNMBER: US 60/349,511
REIGH REPRING DATE: 2002-01-18
FRIOR FILING DATE: 2002-01-18
FRIOR FILING DATE: 2002-03-15
FRIOR PELLOR OF TREES: US 60/374,063
FRIOR PELLOR OF TREES: US 60/403,468
FRIOR APPLICATION NUMBER: US 60/403,468
FRIOR APPLICATION NUMBER: US 60/414,562
FRIOR APPLICATION NUMBER: US 60/414,562
FRIOR APPLICATION NUMBER: US 60/419,986
FRIOR APPLICATION NUMBER: US 60/419,986
FRIOR APPLICATION NUMBER: US 60/429,797
FRIOR FILING DATE: 2002-09-17
FRIOR APPLICATION NUMBER: US 60/429,797
FRIOR FILING DATE: 2002-11-26
FRIOR APPLICATION NUMBER: US 60/429,797
FRIOR FILING DATE: 2002-11-26
FRIOR FRIOR FRIOR DATE: 2002-11-26
FRIOR FRIOR DATE: 2002-11-26
FRIOR FRIOR DATE: 2002-11-26
FR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 PheIleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2772
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-2 (1-398) x US-10-345-680-43 (1-2772)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                   ; Sequence 43, Application US/10345680; Publication No. US20030148394A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9.28e-142
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ...(1323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , LOCATION: (64)
US-10-345-680-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
```

g

ઠે a ઠે

ò 용 ઠે 중 음

```
Sequence 30, Application US/10312312
; Sequence 30, Application US/10312312
; Sequence 30, Application US/10312312
; Sequence 30, Application No. US2040068097A1
; GENERAL INFORMATION:
    APPLICANT: Yamazaki, Victoria
    APPLICANT: Tang, Y. Tom
    APPLICANT: Thou, Ping
    APPLICANT: Thou, Ping
    APPLICANT: About, Vinco
    APPLICANT: About, Vincol-06-20
    APPLICANT: About, VINC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2683 GAGCGCGCCGCTGCCCCCCCCGCGCGCCGAGAGGTCGCCGCCGCCGCAAATCCCCCCCAGG 2742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2515 GAGCAGCCACTG-------CTGCCTCCACGCCCTGTCCAGGCGCAGCCGCTGGGC 2562
                                                                                                                                                                                                                                                                             2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                       2274
                                                                                                                                                                                          2334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluargGlyCysalaLeuProargalaProargGlyargArgArgProAsnProSerLys 380
                                                                                                                                                                                                                                                                                                                                                                                                      GlyThrvalThrAlaArgvalThrGlnArgThrGlyProSerAlaProProGlulys 300
                                                                                                                                                  240
                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                     LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla
                                                                                                                                                                                                                                                         GluGlnProleuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgProGlySerProAlaProAlaGluLyBValGluThrProSerProProThrAlaSer
                                                                                                                                                                        2215 chddaddcchrchrighchrachdacdchraccaccdroddchriddcdachardro
                                                                                                                                                  221 ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                      261 ValSerargArgThrArgAlaGluWetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                              LeuGluAlaileTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                            201
                                   2155
                                                                                                                                                                                                                                                                                           2335
                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                        g
                                                                                                                셤
                                                                                                                                                                 à
                                                                                                                                                                                              요
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                 8
                                                                          ठ
                    APPLICANT: Drmanac, Radoje T
TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO G PROTEIN-COUPLED RECEPTOR-LIKE
TITLE OF INVENTION: LIKE) POLYPEPTIDES AND POLYNUCLEOTIDES
TITLE OF INVENTION: LIKE) POLYPEPTIDES AND POLYNUCLEOTIDES
FILE REPERENCE: HYS-37C1P
CURRENT PILING DATE: 2002-03-08
PRIOR PELLING DATE: 2000-08-31
PRIOR PELLING DATE: 2000-08-31
PRIOR APPLICATION NUMBER: US 09/653,450
PRIOR PELLING DATE: 2000-08-31
PRIOR PELLING DATE: 2000-08-31
PRIOR PELLING DATE: 2000-08-31
PRIOR PILING DATE: 2000-04-25
PRIOR PELLING DATE: 2000-04-25
PRIOR PELLING DATE: 2000-04-25
PRIOR PELLING DATE: 2000-04-25
PRIOR PELLING DATE: 2000-06-20
PRIOR PILING DATE: 2000-06-20
PRIOR PILING DATE: 2000-06-20
PRIOR PILING DATE: 2000-06-20
PRIOR PILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PATENTH VERSION 3.0
LENGTH: 3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1798 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGGGCGGACCCAGAAACCAACTCGACC 1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCGGCTGGGCTCCTCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1738 GAGGTCCGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Metargsethrthtleuleuhlaleuleuhlaleulalleuleutyrleuvalsergly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3945
327
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-2 (1-398) x US-09-747-835A-30 (1-3945)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.27e-141
1688.50
88.41%
82.37%
81.22%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-747-835A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
```

g

엄 à

පු

ò

g ð

ð

요 à ద ò 셤 ò g à

ò

2514

300

2562

340

```
APPLICANT: Tang, Y. Tom
APPLICANT: Lang, Y. Tom
APPLICANT: Lang, Y. Tom
APPLICANT: Lang, Y. Tom
APPLICANT: Lang, V. Tom
APPLICANT: Lang, Daire
APPLICANT: Lang, Daire
APPLICANT: Mang, Durrai
APPLICANT: Mang, Durrai
APPLICANT: Mang, Julia
APPLICANT: Ren, Felyan
APPLICANT: Ren, Felyan
APPLICANT: Mand, Vinod
APPLICANT: Mand, Mand, Vinod
APPLICANT: Mand, 
                                                                                                                                                                                                                                                              2683 dadedecederececrececedecedecedes de consecuences de 2742
                                                                                                                                                                                                                                                                                                                                                              2623 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 2682
                                                                                                                                                 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                     361 GluhrgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgArgProAsnProSerLys 380
                                                                                             ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                                                                                                                                                                                                                                                     341 AlaLeuAspTvrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                 GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3996
327
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-747-835A-28
; Sequence 28, Application US/09747835A
; Patent No. US20020146692A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.32e-141
1688.50
88.41%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Yamazaki, Victoria
APPLICANT: Tang, Y. Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (3996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (52).
US-09-747-835A-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                            2395
                                                                   281
                                                                                                                                                    301
                                                                                                                                                                                                                                      321
                                                                 à
                                                                                                  요
                                                                                                                                                 8
                                                                                                                                                                                    원
                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1618 ATGCGCAGCACCACGCTCCTGGCCCTGGTGGTCTTGCTTTACTTTGGTGTCTGGT 1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1678 GCCCTGGTGTTCCGGGCCCTGGAGCAGCCCCACGAGCAGCAGCCCAAGAGGAGCTGGGG 1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2035 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTTGAAG 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2335 CTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTA 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrplle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261 ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCCTTTGGCGACTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 PhelleLygLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recerecretrerecreaceceaegracererarareaaegaereaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                3945
327
24
41
5
                                                                                                                                                                                                                                                                           Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-2 (1-398) x US-10-312-312-30 (1-3945)
                                                                                                                                                                                                                                  Length:
Matches:
PRIOR APPLICATION NUMBER: US 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PatentIn version 3.0
SEQ ID NO 30
LENGTH: 3945
                                                                                                                                                                                                                                  27e-141
                                                                                                                                                                                                                                             3.2,0
1688.50
88.41%
82.37%
81.22%
                                                                                                                            TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                     US-10-312-312-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2215
                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
2793
             361 GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgProAsnProSerLys
                                                                 AlaLeuAspTyrProSerGluAsnLeuAlaPheileAspGluSerSerAspThrGlnSer
                                                                                                         2794 AAGCCCGTGCGCGCCCCGGGCCCCCGGGCGTCCCGAAGCCTGCCG 2844
                                                                                          LysproSerArgProArgGlyProGlyArgLeuArgAspLysAlaValPro 397
                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: LALLINGUAGE.

APPLICANT: Drmanac, Radoje T.

TITLE OF INVENTION: No. US20030104529Alel Nucleic Acids and TITLE OF INVENTION: PolyPeptides

TITLE OF INVENTION: PolyPeptides

TITLE OF INVENTION: PolyPeptides

CURRENT APPLICATION NUMBER: US/10/037,270

CURRENT FILING DATE: 2002-01-04

PRIOR FILING DATE: 2000-04-25

PRIOR APPLICATION NUMBER: 09/488,725

PRIOR FILING DATE: 2000-01-21

NUMBER OF SEQ ID NOS: 1104

SOFTWARE: Pt_Genes Version 1.0

SEQ ID NO 195

SEQ ID NO 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3996
327
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-655-272-2 (1-398) x US-10-037-270-195 (1-3996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                               US-10-037-270-195;
Sequence 195, Application US/10037270;
Publication No. US20030104529A1
GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Wehrman, Tom
APPLICANT: Wang, Yonghong
APPLICANT: Yang, Yonghong
APPLICANT: Wang, Zhiwei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.32e-141
1688.50
88.41%
82.37%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (3668)..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; NAME/KEY: CDS
; LOCATION: (52)
US-10-037-270-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
Pred. No.:
                                                                                                                                                          US-10-037-270-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Sir
Query Match:
DB:
                                                                                                   381
        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                            유
                                                                                                    ð
                                                                                                                      요
                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                          2085
                                                                                                                                                                                                                                                                                                                                                                                                             221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeupheGlyLeuAlaTyrPheAlaSerValLeuThrThr1leGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                  CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                              GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGACCAGGAGCTGGGCCTC 1848
                                                                                                                                                                                                                         160
                                                                    80
                                                                                                                 40
                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141 AspargLeuGlySerSerLeuargArgGlyIleGlyHisileGluAlailePheLeuLyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                           61 PheilelysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                          81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                 21 AlaieuvalpheGlnhlaieuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
    41
2
                                                x US-09-747-835A-28 (1-3996)
    Mismatches:
Indels:
Gaps:
      82.37%
                                                  US-09-655-272-2 (1-398)
        Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                   2026
                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                              1789
                                                                                                                                                1729
       Best Local S:
Query Match:
DB:
```

셤 ò

셤 ò

g ò g ò g õ Q ò

8 &

셤 ò

g

ð g ò

8 %

g 8 g

ò

a ò 8 & g ò

ò

g

8 6

8 8

8 6

8 B 8

a

6 6 6

g

g

ઠ

8 8 8

8

8 & 8

ઠે

```
2145
2205
                                                                                                                                                                                                                                                                                                                                                                                                                              2266 CTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTG 2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2733
                                                                                                                                                                   1966 ATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTC 2025
                                                                                                                                                                                                                                                                                                                                                                           2326 GCCGGCCGGACCCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGTTCTGGATC 2385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                              CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200
                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluArgGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys 380
                                                                                                                                                     AspargleuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                        2086 GACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGAGGGCTCCTCGGATACGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                              LeuGluAla11eTyrPheVa111eVa1ThrLeuThrThrVa1GlyPheGlyAspTyrVa1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrValThrAlaArgValThrGlnArgThrGlyProSerAlaProProGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCCCGTGCGGCCCCCGGGCGTCCCCGAGACAAAGGCGTGCCG 2844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValPro 397
                                                                                                                                                       101
                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2794
                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
```

q

\$ 8 \$

8 8 8 8

ò

Search completed: February 3, 2005, 06:54:04 Job time : 711.536 secs THIS ACK LEFT OUM

.

Homo sapi UI-R-BO1-

Pan trogl

AL537215

BB569111

Perfect score: Sequence: Scoring table:

Title:

Run on:

Searched:

```
GSS 15-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. 1 (bases 1 to 1197)

Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Reritera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, W. Hunder, A. Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockwille, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering them based on alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Dases 1 to 1197)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AY405806 1197 bp DNA linear GSS 15-DEC
Mus musculus KCNK4 gene, VIRTUAL TRANSCRIPT, partial sequence,
                                                                                                                                                                                                                                  BU759620
C00434651
C004346471
C0959623
AY404471
AY404471
AY404471
BY404534
BY408534
C08526721
CC871490
                                                                                                        AL537214
BB569111
CK65358
AY418066
AL537215
CK005597
BQ948206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene trios
Science 302 (5652), 1960-1963 (2003)
14671302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                                                                                          AY404469
BM942654
BY248534
                                                                                                                                                                                                                                                   BX478651
CO039400
                                                                                                                                                                                                                                                                                                                                                                                                                  AU177116
CA871490
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CK870719
CD326083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BU304218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       based on alignment.
Location/Qualifiers
1. .1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AY405806.1 GI:39761780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1491
1129
3365
775
1360
613
801
                                                                                                                                                                                                654
920
667
667
772
772
885
885
885
885
772
772
772
609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
AY405806
 RESULT 1
AY405806
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
 Command line parameters:
-MODEL=frame+ p2n.model.-DEV=xlh
-MODEL=frame+ p2n.model.-DEV=xlh
-MODEL=frame+ p2n.model.-DEV=xlh
-Q=/Cgn2_1/USPTO_spool/US09655272/runat_02022005_141715_6758/app_query.fasta_1.1102
-Q=/Cgn2_1/USPTO_spool/US09655272/runat_02022005_141715_6758/app_query.fasta_1.1102
-DB=EST -QEMT=fastap -SUPFTX=ET -MINNATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bite -STRAT=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOTALIGN=200 -THR_SCORE_pct -THR_MX=100 -TR_MIN_EN=0 -ALGN=ELOCAL
-UNITS=bite -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USRB=US0655272_@CGN 1_1 4385_@runat_0202505_141115_6758_NOPU=6 -ICPU=3
-NO_MMAP -LARGEQUER*Y -NEG_SCORES=0 -WAIT -DSPELOCK=100 -LONGLOG
-PEQ_TIMEOUT=120 -WARN TIMEOUT=0 -TRREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AY405806 Mus muscu
AY405804 Homo sapi
CR603880 full-leng
BC067791 Homo sapi
CB606856 AMGNNUC:N
BE981482 UI-M-CG0p
BX451513 BX451513
BE981393 UI-M-CG0p
BI758226 603029871
                                                                                                                       2, 2005, 21:56:31; Search time 4055.14 Seconds (without alignments) 3576.449 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                  1 MRSTTLLALLALVLYLVSG.....SKKPSRPRGPGRLRDKAVPV 398
                                                                                                                                                                                                                                                                                                                                                                                                                   65645750
                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                      OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                32822875 segs, 18219865908 residues
                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                        0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AY405806
AY405804
CR603880
BC067791
CB606856
BE981482
BX451513
BE981393
BI758226
                                                                                                                                                                                                                                                                  BLOSUM62
Xgapop 10.0 , Xgapext (
Ygapop 10.0 , Ygapext (
Fgapop 6.0 , Fgapext (
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                              US-09-655-272-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gb_est1:
gb_est2:
gb_est4:
gb_est4:
gb_est6:
gb_gs81:
gb_gs81:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11197
11182
1560
1405
581
590
736
593
                                                                                                                         February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57.1
47.4
43.6
43.0
39.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST:*
```

Jatabase :

2079 1692.5 1381 1187 986

Result No.

907 898 894 822.5

AMGNNUC:S UI-M-FY0-AU177116 K0910F08-

AGENCOURT AGENCOURT

full-leng AGENCOURT full-leng

Mus muscu

UI-M-HQO

Pan trogl 603608750

Mus muscr

Mus muscr

Homo sapi UI-M-CG0p

BY248534

DKFZp686H UI-M-BH0-

AGENCOURT JI-R-FFO Mus muscu

AGENCOUR'

340

320 960 1080

360

```
AY405804 1182 bp DNA linear GSS 15-DEC-2003 Homo sapiens KCNK4 gene, VIRTUAL TRANSCRIPT, partial sequence, general sequence.
                                                                                                                                                                                                                                                                                                                              Bukardia; Butheria; Primates; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarthin; Hominidae; Homo. Mammalia; Butheria; Primates; Catarthin; Hominidae; Homo. Li Chases I to 1182)

Clark, A.G. Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Perriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Tab. 13.0 (Cark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Clark, A.G., Glanowski, S., Nielson, R., Iu, F., Murphy, B., Todd, M., A., Tanenbaum, D.M., Civello, D.R., Iu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Direct Submission

Submitted (I6-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering them based on alignment.
Location/Qualifiers
                                                                                                               1182
328
24
41
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                     Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. 1182
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="KCNK4"
/locus_tag="HCM2346"
                                                                                                                                                                                                                                                                                        AY405804
AY405804.1 GI:39761778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.55e-118
1692.50
88.44%
82.41%
81.41%
                                                                                                                                                                                                                                                                                                                Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <1. -. >1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                gene trios
                                                                                                                                                                                                                                                                                                                                                                                                                                    14671302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
Pred. No.:
                                             301
                                                                                                                                                                                                                                        RESULT 2
AY405804
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                   PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                               g
                                                                                                                                                                                                                   g
                                                                                                                                      용
                                                                                                                                                             ò
                                                                                                                                                                                                  ò
                                                         셤
                                                                                  8
                                                                                                 a
                                                                                                                         8
                    셤
                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                             HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                                                                                                                                                                                                                        PheIleLysLeuLeuValGluAlaLeuGlyGlyAlaAsnProGluThrSerTrpThr 80
                                                                                                                                                                                          9
                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1197
398
0
0
0
                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                       Gaps:
   /organism="Mus musculus'
/mol_type="genomic DNA"
/db_xref="taxon:10090"
                                                                                                                                                        US-09-655-272-2 (1-398) x AY405806 (1-1197)
                              <1. .>1197
/gene="KCNK4"
/locus_tag="HCM2346"
                                                                                     1.12e-147
2079.00
100.00%
100.00%
                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                              Query Match:
DB:
                                                               ORIGIN
```

g ò

g

셤 8

g ò

à

유

셤 ò g ò g ò

à g ò g 8 g à 셤 ò 셤 ò 셤

Š

ઠે

ઠ

ò

8

ð

ઠે

δ

જે

```
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.

Location/Qualifiers
                                                                             1125
1006 GCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC 1065
                                                                                                                                                                                                                                        HTC 21-JUL-2004
                                                                                                                                                                                                                        CR603880 1560 bp mRNA linear HTC 21-JUL-2004
full-length cDNA clone CS0DF019YL24 of Fetal brain of Homo sapiens
(human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Yellow
                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104
                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1560)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluargGlyCysAlaLeuProArgAlaProArgGlyArgArgArgProAsnProSerLys
                                                          LeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsn ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 ATCGGTGGGGGAGGGGATTGGCATGTGGGGGGGGCGCCAAGGAGGTTTCCTCATGGGGAAGG
                                                                                                                                        Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
                                                                                                                   381 LysProSerArgProArgGlyProGlyArgLeuArgAspLysAlaValProVal 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1560
281
17
31
107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="CSODF019YL24"
/tissue type="Fetal brain"
/plasmid="pcMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1-1560)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                 CR603880.
CR603880.1 GI:50484687
HTC; CNSLT_CDNA.
HOMO saplens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               x CR603880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.72e-94
1381.00
68.35$
64.45$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 1560)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105 Ile-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105
                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment
                                                                                                                                                                                                     RESULT 3
CR603880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaLeuAspTyrProSerGluAsnLeuAlaPheIleAspGluSerSerAspThrGlnSer 360
                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspargleuGlySerSerleuArgargGlyIleGlyHisIleGluAlaIlePheLeuLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluGlnProLeuLeuProSerSerLeuProAlaProProAlaValValGluProAlaGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           945
                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 657
                                                                                                                                      40
                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                     80
                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCTGGTGTTCCGGGCCCTGGAGCACCCCACGAGGAGCAGGCCCAGAGGAGCTGGGG
                                                                                                                                                                                                                                                                                                                        TGCCTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCCCCCACCCCAGCACACTCCCCGGCCTATCAGCCGCGGGGTCTGGTTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                               AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IlelleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CysllePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CysteuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGluhlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               creeaegccarcrartercaracreacecrraccacergescrrreeceartarere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThrAlaSer
                                                                                 ATGCGCAGCACCACCACCTCCTGGCCCTGCTGGCTCTTGCTTTACTTGGTGTCTGGT
                                                                                                                                                                                                                        41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                   PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rescacereccaccesecraeras as a consecret con a c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221 ProGlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                          MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                    x AY405804 (1-1182)
                    09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   598
                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           946
                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 6 8 6
                                                                                                                           ठे
                                                                                                                                                                     ద
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
1265 GCGGCCCCGCGGGCCTCCCCGAGACAAAGGCGTGCCGGTG 1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE:30345701"
/tissue type="Placenta, r
/clone_lib="NIH_MGC_147"
/lab_host="DH10B"
                                                                                         GI:45768264
                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 1405)
                                                                                                              (human)
                                                                                                                                                                                                                                                                                                                                                                                                                               Submission
                                                                                                             Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg, R
                                                                               BC067791
BC067791.1
                                                                                                                                                                                                                                                                                                                                                                                                                                Direct
                                                                      ntron.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
                                                          DEFINITION
                                                                                                               SOURCE
ORGANISM
                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                 ACCESSION
                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REMARK
                                     BC067791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1085 ATCCCCTTCGCCCCCGAGAAGGTCAGCCGCTTCCCCGCCCACAGGCCTCGGCCTCGGA 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1145 TIATCCCAGCGAGAACCTGGCCTTCATCGACGACTCCTGGGATACGCAGAGCGAGGCGGG 1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    323 yserprohlaprohlaglulysValGluThrProSerProProThrAlaSerAlaLeuAs 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YCysAlaLeuproArgAlabroArgGlyArgArgArgProAsnProSerLysLysLysProSe 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        283 lThrAlaArgValThrGlnArgThrGlyProSerAlaProProProGluLysGluGlnPr 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303 oLeuLeuProSerSerLeuProAlaProProAlaValGluProAlaGlyArgProGl 323
                                                                                                                                                                                                                                                                                                                                                                                                             carchactritercaracteacectraccaccereaecertreeceaectarereeceeece
                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YleunlaTyrPhenlaSerValLeuThrThrIleGlyAsnTrpLeuArghlaValSerAr 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gargThrargAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThrGlyThrVa 283
                                                                                                                                                                                                                                                                                                                                                            alleTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAs 223
                                                                                                                                                                                                                                                                                                    163 lproproGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGlyCysLeuLe
                                                                                                                                                                                                                                                                                                                 203
                                      125
                                                             316
                                                                                 LeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGlySer 145
                                                                                                       376
                                                                                                                             159
                                                                                                                                                  436
                                                                                                                                                                                          437 TGCCTGCCCTTGTGCTGGGCTCCGGCTACCCTTCCCCATGTCCCTGGCACATGAGCGCGC 496
                                                                                                                                                                                                                 159
                                                                                                                                                                                                                                     --LysTrpHisVa 163
                                                                                                                                                                                                                                                                               616
                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pTyrProSerGluAsnLeuAlaPhelleAspGluSerSerAspThrGlnSerGluArgGl
                                                                                                                                                                                                                                                                                                                                                                                                                                   pglyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIleLeuPheGl
                                                                                                                                                                                                                                                                                                                                                                                                                                              557 TGGGGATTGTTGGTGTCTCCTGGGTCCTGCCTACTGCCCCATCCCGCAGAAGTGGCACGT
                                                                                                                                                                                                                                                                                                                                              uPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLysLeuGluAl
                  197 IGCAGGGAGGAGGGTCCCAGGTGGCCCCTAGACTTCCTGCATCGCCCCTCTGCCA
                                      GlytyrdlyasnileValleuHisThraspalaGlyargLeuPheCysilePheTyrala
                                                                                              383 rArgFroArgGlyProGlyArgLeuArgAspLysAlavalFroVal 398
                                                                                                                             SerbeuargargGlyIleGlyHisIleGluAlaIlePhebeu-
                                                                                                                                                                                                                                                                  160 -----
                                                                                                                                                                             ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L037 ACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                                                              203
                                                                                                                                                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                                                                                                                                             797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             263
                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                             317
                                                                                                                                                                                                                      159
                                             901
                                                                                       126
                                                                                                                                   146
                                                                                                                                                                            159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                  g
                                                                                                                                                                                            Db
                                                                                                                                                                                                                 ò
                                                                                      Š
                                                                                                         g
                                                                                                                                  8
                                                                                                                                                                       \dot{\varsigma}
                                                             셤
                                             ò
```

```
manmalar is interest, Cattling, Catt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome
CA 94305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone distribution: MGC clone distribution information can be fount through the I.M.A.G.E. Consortium/LiML at: http://image.llnl.gov Series: IRAK Plate: 168 Row: o Column: 5 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 15718766 This clone has the following problem: retained intron.
BC067791 11near HTC 26-MAR-2004 mRNA linear HTC 26-MAR-2004 Homo sapiens cDNA clone IMAGB:30345701, with apparent retained
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium Genome
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 943
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
R. M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (19-MAR-2004) National Institutes of Health, Mammalian Submitted (19-MAC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tissue Procurement: Dr. Stefan Hansson
cDNA Library Preparation: Michael Brownstein / Ted Usdin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ú.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 9
12477932
```

Qy 365 AlaLeuProArgAlaProArgGlyArgArgArgArgArgArgArgArgArgArgArgArgArgA	cus cDNA clone nrhy4-00145-c1 5', mRNA sequee 6 6.1 GI:29546469 norvegicus (Norway rat) norvegicus (Norway rat) a, Metazoa; Chordata; Craniata; Vertebrata; a; Eutheria; Rodentia; Sciurognathi; Muridae.	Rattus. 1 (bases Amgen EST Amgen Rat Unpublish Contact: Amgen, In One Amgen, Ir	source 1.581 /organism="Rattus norvegicus" /mol_type="mRNA" /db_xref="taxon:10116" /clone="nrhy4-00145-c1" /clone="nrhy4-vol045-c1" /clone="nrhy4-vol045-c1" /clone="nrhy4-vol045-c1" /clone="vector: pSPORT1; Site_1: Sal1; Site_2: Not1; W Rathypothalamus adult female Wistar rat avg. Insert size 2.3 kb fraction 6 and 7"	Ment Scores: 4.72e-65 No.: 986.00 nt Similarity: 97.41% Match: 6 6	US-09-655-272-2 (1-398) x CB606856 (1-581) Qy 62 IleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThrAsn 81 [Qy 102 IleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspalaGlyArgLeuPheCys 121 Db 123 ATCACTACCATCGGCTACGGCAATATAGCCTTACACACAGATGCTGGGCGTCTCTTTTGT 182 Qy 122 IlePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGlyAsp 141 Db 183 ATCTTCTATGCACTGGTGGGGATCCCACTGTTCGGGATGCTGCTGGCTG
ORIGIN Alignment Scores: Pred. No.: Score: B.2e-80 Length: Score: Score: 197.00 Matches: Bert Local Similarity: 70.68 Mismatches: 28 Query Match: 3 Gaps: 3 Gaps: US-09-655-272-2 (1-398) x BC067791 (1-1405)	G1yG1 		483 TCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTT	205 TyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGly 224	CTTACTTCGCCTCACCTCCGGAACTGGGAGTAGTGCCGCCGCGCGCG	755 GCGCGCGTGACCCAGCGAGCCGCCCCCCCGCCGGAGAAGGAGCACCAC

```
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
1st strand cDNA was primed with a Not1-oligo(dT) primer. Five prime
end enriched, double-strand cDNA was digested with Not I and cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PX451513 To appear EST 06-MAY-2004 BX451513 Homo sapiens FETAL BRAIN Homo sapiens CDNA clone CSODPO19YL24 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 CysilepheTyrAlaLeuValGlyileProLeuPheGlyMetLeuLeuAlaGlyValGly 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141 AspargieudlySerSerleuArgArgGly1ledlyHisileGluAlailePheleuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                 1 MetargSerThrThrLeuleuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                         21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysWetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          On May 22, 2003 this sequence version replaced gi:31026267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Verte Mammalia; Butheria; Primates; Catarrhini; Hom 1 (bases 1 to 736)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Unpublished (2001)
                                                                                  590
176
0
0
0
                                                                                                                 Conservative:
Mismatches:
Indels:
University School of Medicine TAG_SEQ=None found"
                                                                                      Length:
Matches:
                                                                                                                                                                                                           US-09-655-272-2 (1-398) x BE981482 (1-590)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BX451513.2 GI:47063398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
                                                                                                        907.00
100.00%
100.00%
43.63%
                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
                                                                                                                                               Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                 ..
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BX451513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:0090"
/db_xref="taxon:0090"
/db_xref="taxon:0090"
/dlone="uly-m-CG0p-bdc-f-10-0-UI"
/lab host="milloB (Life Technologies)"
/clone=llb="NIH BMAP Ret4 S2"
/clone=llb="NIH BMAP Ret4 S2"
/note="vcctor: pT/T13D-Pac" (Pharmacia) with a modified
polylinker; Site 1: Not 1; Site 2: Eco R1; The
polylinker; Site 1: Not 1; Site 2: Eco R1; The
NIH BMAP Ret4 S2 library is a subtracted library.
NIH BMAP Ret4 S2 library is a subtracted library.
ultimated veriform mouse retina tissue libraries at
various stages of development. For a detailed description
of the library from which this clone was derived, please
visit our web site at brainest.eng ulowa.edu. The tissue
for this library was contributed by Dr. Xin-Yuan Fu, Yale
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fax: 301 473 5930 of Bearlian Bearlian Bearlian Beginning of sequence Oligo-dr track not found, Not I site shown in beginning of sequence is likely internal to the message. CDNA Library Preparation: M.B. Soares Lab Clone distribution: Researchers may obtain BMAP CDNA clones from RESEARCH GENETICS. It should be noted that Bento Soares is generating a small number of additional specialized non-redundant arrays of BMAP CDNAs whose availability will be considered under appropriate and limited collaborative arrangements The tissue for this library was contributed by Dr. Xin-Yuan Fu, yale University School of Medicine Begrimer: Mis Forward POLYA-No.
                                                                                                                                                                                                                                                                                                                                                                     BE981482 ST 29-APR-2002 UI-M-CG0p-bdc-f-10-0-UI.81 NIH_BMAP_Ret4_S2 Mus musculus CDNA clone UNA-CG0p-bdc-f-10-0-UI.3', mRNA sequence.
                                                                                                                                    221
                                                                                                                                                                     482
                                                                                                                                                                                                       241
                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mamalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 590)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                 422
         201
                                                                LeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLygLeu
                                                                                GluAlaileTyrPheValileValThrLeuThrThrValGlyPheGlyAspTyrValPro
                                                                                                                                                        GlyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Chin, H
National Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, 1
20892-9643, USA
TTE1: 301 443 1706
Fax: 301 443 9890
                                                                                                                                                                                                                                                                           PheglyLeuAlaTyrPheAlaSerValLeuThrThrile 254
                                                                                                                                                                                                                                                                                               1. .590
/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome Res. 6 (9), 791-806 (1996)
97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         BE981482.1 GI:10650633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                             BE981482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8889548
                                                                                                                                                                                                                                                                                    242
                                                                                                              363
                                                                                                                                               202
                                                                                                                                                                                423
                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                   483
                                          303
                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                         BE981482/c
                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                          RESULT 6
```

72

100 252

312

80

432

g

셤

à

g &

g

ò

à

492 40 372

9

```
Alignment S
Pred. No.:
                                                                     RESULT 8
BE981393/c
                                                                                                                   DEFINITION
                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                        MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                               g
into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized. Library was constructed by Life Technologies, a division of Invitrogen.

division of Invitrogen.

For more belongs to sequence cluster 6303.f

For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CSOBAF015ZF10_AF01423_1&c=6303.f
                                                                                                                                                                                                                    /tissuc_type="FETAL BRAIN"
/dev_stage="fetal"
/clone_lib="Homo sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECORV sites of the pCMVSPORT 6 vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       350 AlaPhelleAspGluSerSerAspThrGlnSerGluArgGlyCysAlaLeuProArgAla 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     210 ThrLeuThrThrValGlyPheGlyAspTyrValProGlyAspGlyThrGlyGlnAsnSer 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValleuThrThrIleGlyAsnTrpLeuArgAlaValSerArgArgThrArgAlaGluMet 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188 GTGCTCACCACCATCGGGAACTGGCTGCGAGTAGTGTCCCGCCCACTCGGGCAGAGATG 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyGlyLeuThrAlaGlnAlaAlaSerTrpThrGlyThrValThrAlaArgValThrGln 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248 GGGGCCTCACGGCTCAGGCTGCCAGCTGGACTGGCACAGTGACAGCGCGCGTGACCCAG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290 ArgThrGlyProSerAlaProProProGluLysGluGlnProLeuLeuProSerSerLeu 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    308 CGAGCCGGCCGCCCGCCGCCGCGGAGAAGCAGCCACTG------CTG 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    310 ProAlaProProAlaValValGluProAlaGlyArgProGlySerProAlaProAlaGlu 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysValGluThrProSerProProThrAlaSerAlaLeuAspTyrProSerGluAsnLeu 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         476 GCCTTCATCGACGAGTCCTCGGATACGCAGAGCGAGCGCGGCTGCCCGCTGCCCCGCGCG 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProArgGlyArgArgArgProAsnProSerLysLysProSerArgProArgGlyProGly 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536 CCGAGAGGTCGCCGCCCCCAAATCCCCCCAGGAAGCCCGTGCGGCCCCGCGGGCCCCGGG 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 rrcgrgrrcrg-crrargaagaacrgaagaacrgaagcragaggccarcracrrrgrcaragrg 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
174
6
25
5
                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels:
                                                                                                                                        1. .736
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                      /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODF019YL24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    x BX451513 (1-736)
                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                             3.14e-58
898.00
86.12%
83.25%
43.19%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.:
                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
Tel: 301 443 1706

Fax: 301 443 9890

Email: mestGemail.nih.gov
Oligo-dT track not found, Not I site shown in beginning of sequence is likely internal to the message. cDNA Library Preparation. M.B. Soares Lab Clone distribution: Researchers may obtain BMAP CDNA clones from RESEARCH GENETICS. It should be noted that Bento Soares is generating a small number of additional specialized non-redundant arrays of BMAP CDNA whose availability will be considered under appropriate and limited collaborative arrangements The tissue for this library was contributed by Dr. Xin-Yuan Fu, Yale University School of Medicine Seq primer: Ml3 Forward
POLYA=NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1...593
| organism="Muss musculus" |
| organism="Muss musculus" |
| mol_type="mRNA" |
| farzain="c57BL/6J" |
| /db xref="taxon:10090" |
| /clone="UI-M-CGOp-bdb-f-11-0-UI" |
| /lab host="UI-M-CGOp-bdb-f-11-0-UI" |
| /lab host="UI-M-TGOp-bdb-f-11-0-UI" |
| /lab host="Tylyly |
| /clone="Useror: pTylyly |
| /clone="Vector: pTylyly |
| /clone | /clone |
| /clone="Vector: pTylyly |
| /clone | /clone | /clone | /clone | /clone |
| /clone | /clone | /clone | /clone |
| /clone | /clone | /clone | /clone |
| /clone | /clone | /clone | /clone |
| /clone | /clone 
                                                                                                                                                                                                                                                             BE981393 593 bp mRNA linear EST 29-APR-2002 UI-M-CGOp-bdb-f-11-0-UI.81 NIH_BMAP_Ret4_S2 Mus musculus cDNA clone UI.M-CGOp-bdb-f-11-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
1 (bases 1 to 533)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Chin, H
Mational Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, MD
20892-9643, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               593
176
0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome Res. 6 (9), 791-806 (1996)
x BE981393 (1-593)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAG SEQ=None found"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE981393.1 GI:10650455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.74e-58
894.00
99.44%
99.44%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97044477
                                                                                                                                                                                                                                                                                                                                                                                                         BE981393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8889548
```

	Alignment Scores: 2.31e-52 Length: 922 Pred. No.: 822.50 Matches: 199 Score: 68.55\$ Conservative: 19 Best Local Similarity: 62.58\$ Indels: 62 Query Match: 4 Gaps: 5	US-09-655-272-2 (1-398) x BI758226 (1-922) QY	194 40 254 60		Qy 100 rllelleThrThrlleGlyTyrGlyAsnileValLeuHisThrAspAlaGlyArgLeuPh 120	140 YASPARGLEGIYSERSERLEUARGARGIYIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	eg]	• •	220 643 240 703	Oy Zeb Aid-Valletti Aid
55.4 49.4		Qy 81 AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlyGerAlaPhePhePheSerGlyThr 100 Db 314 AATAGCAACCACTCATCACTTGGAACCTGGGCAGCGCTTCTTTTTTCTGGGGACC 255 Qy 101 IleIleThrThrIleGlyTyTcJlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120 Dr. 254 AFFARGACCATGGCTATGGCAATAGCCACACACACACACACGGGCGTCTCTTT 195	121 194 141 134	161	B1758226 B1758226 B1758226 B1758226 B1758226 BEFINITION 603029871F1 NIH_MGC_114 Homo sapiens cDNA clone IMAGE:5200313 5', DEFINITION mRNA sequence. ACCESSION B1758226 B1758250N B1758256 B1758226.1 G1:15749804	VERSION CONTROLL STREET (Numan) SOURCE Homo sapiens (human) ORGANISM Homo sapiens ENLATYOTA, METAZOA, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.	REFERENCE 1 (bases 1 to 922) AUTHORS NIH-MGC http://mgc.nci.nih.gov/. TITLE National Institutes of Health, Mammalian Gene Collection (MGC) JOURNAL Unpublished (1999) COMMENT Contact: Robert Strausberg, Ph.D.	Figure Procurement: Life Technologies, Inc. Tissue Procurement: Life Technologies, Inc. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://mage.lln.gov. column: 18	FEATURES High quality sequence stop: 785. FEATURES Location/Qualifiers 1. 922	/croute=Torgan: brain; Vector: pCMV-SPORT6; Site_1: NotI; /note=Torgan: brain; Vector: pcMV-SPORT6; Site_1: NotI; Site_2: EccRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27 yo. Library is oligo-dT

in Riken

셤

ઠે

유

ò

```
/translation="MYFSYIGYFFLPPLVAVPAAAPPVCQPKSATNGHHPVPRLSISS
RATVVARMEGASQGGLQTVMKWKTVVAIFVVVVVIVTGGTVFRALEDFFESGQKNTI
RATVVARMEGASQGGLQTVMKWTVAIFVVVVVIVTGSPVGGNSNSSHWDLGSAFFRGT
VITTIGYGNIAPSFFECKIFFCILIAAFGIPLEGFLLAGGGDQLGTIFGKSIAVEKVF
RKKQVSQTKIRVISTILFILAGCIVFVIIPAVIFKYIEGWTALESIYFVVVTLTTGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GDEYAGGARG INYERAKYEDIWEWILVGLAYFPAVLSHIGDWIRVLSKKTKEEVGEIK
AHAAEWKANVTAEFEETRRELSVETHDKLQRAATISSMERREGLDQRAHSLDWLSPE
KKSYPAALDYGREKASQSEINNRPNULRLKGPEQLTKHGQGASEDNIINKFGSTSKL
TKRUNKDLKKTLPEDVQKIYKTTRANYSLDEEKKEDETEKMCNSDNSSTAMLTECIQQQ
AEMENGMVPTDTKDQGLENNSLLEDRN"
Takeda,Y., Tanaka,T., Tomaru,A., Toya,T., Yasunishi,A.,
Muramatsu,M. and Hayashizaki,Y.
Direct Submission

Bibmitted (16-APR-2002) Yoshihide Hayashizaki, The Institute of
Physical and Chemical Research (RIKEN), Laboratory for Genome
Exploration Research Group, RIKEN Genomic Sciences Center (GSC),
RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama,
Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp,
URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="FANTON DB:C230015H11"
/db_xref="TANTON DB:C230015H11"
/db_xref="taxon:10090"
/db_xref="taxon:10090"
/c1one="12230015H11"
/c1one_Tib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="0 day neonate"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303 ATGAAGTGGAAAAACAGTGGTTGCCATCTTCGTGGTGGTCGTGGTCGTCACTCGTCACTGGT 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               363 GGCCTTGTCTTCCGGGCCTTGGAACAGCCCTTCGAGAGCAGTCAGAAGAACACACAATCGCC 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114. - 1721

/note="unnamed protein product; POTASSIUM CHANNEL

SUBEMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM

CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT)

homolog [Rattus norvegicus] (SWISSPROT|Q90IS4, evidence:

FASTY, 99.4%ID, 97.2%length, match=1569)
                                                                                                                                                                                                                                                                                                                                             CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2534
183
68
129
41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prepare mouse tissues.
Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [ndels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /proteIn_id="BAC38424.1"
/db_xref="GI:26349569"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              x AK082153 (1-2534)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .22e-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  802.00
59.90%
43.68%
38.58%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The FANTOM Consortium and the RIKEN Genome Exploration Research Analygas of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Lough State 420, 563-573 (2002)

E (Dasses 1 to 2534)

E (Dasses 1 to 2534)

E Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Furuno, M., Hangaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hori, F., Inotrani, K., Ishii, Y., Itoh, M., Kagawa, T., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Komno, H., Kowai, M., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saito, R., Saito, R., Saito, R., Shibate, K., Shibate
                                                                                                                                                                                                                                                                                                                                                                                 AK082153

2534 bp. mRNA linear HTC 03-APR-2004
Mus musculus 0 day neonate cerebellum cDNA, RIKBN full-length
enriched library, clone:C230015H11 product:POTASSIUM CHANNEL
SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN
TREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Pujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watchiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramateu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genes
                                                                                                                Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the RIKEN Genome Exploration Research Group Phase II Team and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
                                                 SerTrpThr---GlyThrValThrAlaArg-ValThrGlnArgThrGlyPro---SerAl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
                                                                                                                                                                               aProProProGlu-LysGluGlnProLeuLeuProSer 307
                                                                                                                                                                                                                      883 CCGCCGCCGCACGAAGGACCAGCACTGGTTGCCTTCA 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AK082153.1 GI:26349568
HTC; CAP trapper.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AK082153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11042159
                                                                                                            823
                                                                                                                                                                                   295
                                                 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                           AK082153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
```

40

AK036066 Mus musculu	SUBFAMILY K TREK-2) (TR full insert	AK036066 AK036066.1 HTC; CAP tr Mus musculv Mus musculv	Eukaryota; Mammalia; E 1 Carninci,P.	High-effici Meth. Enzym 99279253 10349636	Carninci, P. Itoh, M., Ko	prepare ful Genome Res 20499374 11042159	Shibata, K. Konno, H.,	Yamamoto, R Fujiwake, S Yoneda, Y.,	Okazaki, Y. RIKEN inte	Genome Res 20530913	11076861 4 The RIKEN FANTOM Con	Functional Nature 409	The FANTOM Group Phas Analysis o	of 60,770 Nature 420	<pre>b (Dases Adachi, J., Fukuda, S., Havashida.</pre>	Hori, F., I Katoh, H., Koya, S., F	Nakamura, N Okazaki, Y. Sano, H., S	Sogabe, Y., Takeda, Y.,	Direct Sub Submitted Physical	Exploratic RIKEN Yoko Kanagawa '	Fax:81-45
AK036066 LOCUS DEFINITION		ACCESSION VERSION KEYWORDS SOURCE ORGANISM	REFERENCE	TITLE JOURNAL MEDLINE PURMED	REFERENCE AUTHORS TITLE	JOURNAL MEDLINE PUBMED	REFERENCE AUTHORS		TITLE	JOURNAL	PUBMED REFERENCE AUTHORS	TITLE JOURNAL REFERENCE	AUTHORS	JOURNAL	REFERENCE AUTHORS				TITLE JOURNAL		
61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr 80			121 CysilepheTyralaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly 140	141 AspargLeuGlySerSerLeuargargGlyIleGlyHisIleGlualaIlePheLeuLys	161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeulleGly 180	181 CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys 200	201 LeuglualailetyrPheValileValthrLeuthrThrValglyPheGlyAspTyrVal 220 ::: ::			 Auccitgigectigectactitgeagcigiccicagiaigaiggagagigggggagagagagag	260 AlaValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrp 279 ::: :::: :::: ::: - -	280 ThrGlyThrValThrAlaArgValThrGlnArg290	1134 AAGGCTAATGTCACTGCTGAGTTCCGGGAGACGAGAGGCGGCTCAGCGILGAGGTCAAA 1133		300 LysgluglnProleuLeuProSerSerLeuProAlaProProAlaValValGluPro 318	319 AlaGlyArgProGlySerProAlaProAlaGluLysValGluThrProSerProProThr 338			355 SerSerAspThrGlnSerGluArgGlyCysAlaLeuProArgAlaProArgGlyArg 373 :::	374ArgargProAsnProSerLyBLysProSerArgProArgGly 387	
۶. و	े हें	8 & 8	දු දු	۶ م	& 8	& g	දු දු	ογ	6 B	: 음	\$ B	à	g 9	gg	ğ 6	δ	යි සි	qq	Š a	රු පි	

RESULT 11

```
MACOSESTON
MACOSECTION
MACOSEC
```

Thu

```
Mus musculus adult male medulla oblongata cDNA, RIKEN full-length enriched library, clone:6330442J09 product:POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus], AK031904
                                                                                                                                                                                                                                                                                            1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1585
                                                                                                                                    1046
                                                                                                                                                                                                                1106
                                                                                                                                                                                                                                                                                                                                                                     1226
                                                                                                                                                                                                                                                                                                                                                                                                                                               1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1641
                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1407 AAGGCTAATGTCACTGCTGAGTTCCGGGAGACGAGAAAGGCGGCTCAGCGTTGAGATCCAT 1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1467 GACAAGCTGCAACGGGCAGCCAČTAT-ČCGAAGTATGGAGCGCCGGAGGCTGGGCTTGGA 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1642 ACCTACGCCTTAAGGGGCCAGAACAGCTTACCAAACATGGGCAGGGCGCTTTTGAGGACA 1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338
                                                                                                                                                                          180
                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318
                        140
                                                          986
                                                                                                160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339 AlaSerAlaLeu------AspTyrProSerGluAsnLeuAlaPhelleAspGlu 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                        |||:::||||||||::
987 GACCAACTIGGAACCATCTTIGGCAAAAGCATIGCAAGAGGGGAAAAGGTTTTTCGAAAG
                                                                                                                                                                                                1107 FGCATCGGGTTTGTGGACCATCCCTGCTGTCATCTTTAAATACATCGAGGGTTGGACCCCCC
                                                                                                                                                                                                                                                                                                                                                       927 TGTAFTTTATATGCCATCTTTGGGATCCCGCFTTTTTGGFTTCFTATTGGCTGGAATTGGA
                                                                                                AspArgLeuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                          161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuIleGly
                                                                                                                                                                                                                                                        CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                           221 ProGlyAspGlyThrGlyGlnAsn --- SerProAlaTyrGlnProLeuValTrpPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1227 GCAGGGGAAATGCTGGCATCAATTACCGAGAGTGGTACAAGCCGCTGGTGTGTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lleLeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260 AlaValSerArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1347 GTTTTATCCAAAAAGACAAAAGAAGAGGTTGGTGAGATCAAAGCCCACGCAGGCTGAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300 LysGluGlnProLeuLeuProSerSerLeuPro---AlaProProAlaValValGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1526 CCAGAGGGCCCACTCACTGGACATGCTATCCCCTGAGAAGCGTTCTGTCTTTGCAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            319 AlaGlyArgProGlySerProAlaProAlaGluLy8ValGluThrProSerProProThr
                      CysilePheTyrAlaLeuValGlyIleProLeuPheGlyMetLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                                                                                 LeuGluAlaIleTyrPheValIleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------ThrGlyProSerAlaProProGlu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             280 ThrGlyThrValThrAla-----ArgValThrGlnArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AK031904.1 GI:26082587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :::||| |||
1702 ACATCATCAACA 1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       355 SerSerAspThr 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             trapper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTC; CAP
                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                  141
                        121
                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
AK031904
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                            g
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                        ò
                                                                                              ò
                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                      /mol_trype="mrNA"
/strain="CS7BL/6J"
/db_xref="FANTOM DB:9630032C21"
/db_xref="taxon:10090"
/clone="establish"
/tissue type="cerebellum"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="16 days neonate"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALEKAEFLRDHI CVSPOELETLI QHALDADNAGVSPVGNSSNSSSHWDIGSAFFFRGT
VITTIGYGNI APSTEGGKI FCILYAI FGI PLFGFLLAGIGDQLGTI FGKSIARVEKVF
RKKQVSQTKI RVI STILFILAGCI VFVTI PAVI FKYI EGWTALESI YFVVVTLTTVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GDFVAGGNAGINYREWYKPLVWFWILVGLAYFAAVLSNTGDWLRVLSKKTKEEVGEIK
AHAAEWKANVTAEFRETRRILSVEIHDKLQRAATIRSMERRILGLDQRAHSLDWLSPE
KRSVPAALDTGRFKASSQESINNRPNNLRLKGPEQLTKHGQGAFEDNIINKFGSTSKL
TKR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /proteIn_id="BAC29295.1"
/dx xxef="GG1:2633130"
/translation="WFG8Y1030"
/translation="WFG8Y1030"
RATVVARMEGASQGGLQTVMKWKTVVAIFVVVVVYLVTGGLVFRALEQPFESSQKNTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             636 GGCCTTGTCTTCCGGGCCTTGGAACAGCCCTTCGAGAGCAGTCAGAAGAACACACTCGCC 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 IleIleThrThrIleGlyTyrGlyAsnIleValLeuHisThrAspAlaGlyArgLeuPhe 120
                                                                                                                                                                                                                                                                                                                                                                                       /note="unnamed protein product; POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2; K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus] (SWISSPROT|Q9JIS4, evidence: FASTY, 99.4%ID, 97.2%length, match=1569)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACTCTTCCAACAGCAGCAGTCACTGGGACCTTGGAAGTGCCTTCTTTTGCTGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetArgSerThrThrLeuLeuAlaLeuLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1745
174
62
118
32
                                                                            prepare mouse tissues.
Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
                                                                                                                                                                                          organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      x AK036066 (1-1745)
                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27e-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    788.00
61.46%
45.31%
37.90%
                                                                                                                                                                        . .1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-655-272-2 (1-398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
DB:
                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                        PEATURES
  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DRIGIN
```

g

ઠે

g

ઠ

셤

8

g

ઠે

名

8

```
/tissue type="medulla oblongata" /clone lib="RIKEN full-length enriched mouse cDNA library" /dev stage="adult" 1268 /clone librasium channel subfamily k member 10 (OUTWARD /note="POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+CHANNEL SUBUNIT) homolog [Rattus norvegicus] (SWISSPROT[Q9JIS4, evidence: FASTY, 99.4%ID, 97.2%length, match=1569)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CysLeuLeuPheValLeuThrProThrPheValPheSerTyrMetGluSerTrpSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlualalleTyrPheVallleValThrLeuThrThrValGlyPheGlyAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 ProglyAspGlyThrGlyGlnAsn --- SerProAlaTyrGlnProLeuValTrpPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IleLeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ||||:::::|||||||
TGCATCGTGTTTGTGACCATCCTGCTGTCATCTTTAAATACATCGAGGGTTGGACCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 IleilethrihrileGlyTyrGlyAsnileValLeuHisThrAspAlaGlyArgLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 AspArgieuGlySerSerLeuArgArgGlyIleGlyHisIleGluAlaIlePheLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |||::: :::::|||
413 CTGATTCAGCATGCACGCTGATAACGCGGGAGTCAGCCCAGTA------GGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AsnSerSerAsnHisSerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584 igraritrarateccarcriressarccescririresirreritatrescriesaarresa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161 TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLeuIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp
                                                                                                                                                                                                                                                                                                        2628
183
67
130
42
                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-2 (1-398) x AK031904 (1-2628)
'clone="6330442J09"
                                                                                                                                                                                                                                                                                                          6.62e-49
785.00
59.67%
43.68%
37.76%
                         /sex="male"
                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Adachi, "Aizawa, K. Akimura, T., Arakawa, T., Bono, H., Carninci, P., Rukuda, S., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayashida, K., Hayashida, K., Hayashida, K., Hayashida, K., Hayashida, K., Haramoto, K., Hiraoka, T., Harozane, T., Hayashida, K., Hayashi, K., Kadama, T., Katoh, H., Kawai, J., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Salto, R., Saltoh, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Yagami, M., Tagawa, A., Takahishi, F., Takaku-Akahira, S., Takeda, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Tayami, M., and Hayashizaki, Y., Vasunishi, A., Direct Submission Hayashizaki, Y. Toya, T., Yasunishi, A., Direct Submission Hayashizaki, Y. Sano, S., Submitted (16-JUL-201) Yoshihide Hayashizaki, The Institute of Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Group, Riken Group, Riken Group, Riken Group, Riken Group, Ranagawa 230-0045, Japan (B-mail:genome-resegge:riken:jp, Nama, Hayashizaki, Hallahigenome-resegge:riken:jp, Fax: Bl-45-503-9222, Fax: Bl-45-503-9222, Fax: Bl-45-503-9222, Fax: Bl-45-503-9222, Fax: Bl-45-503-9226, Fax: Bl-45-503-9226, Fax: Bl-45-503-9226, Fax: Bl-45-503-9226, Fax: Bl-45-503-9216)
                                                                                                                                       Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Wormalization and Bubtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                 Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishino, T., Harada, A., Fujiwake, S., Inoue, K., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Maraura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKBN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The FANTOM Consortium and the RIKEN Genome Exploration Research Group Phase I & II Team.
Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases I to 2628)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The RIKEN Genome Exploration Research Group Phase II Team and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Functional annotation of a full-length mouse cDNA collection
Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Please visit our web site for further details
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/strain="G57BL/6"
/baxref="FaNTOM DB:6330442U09"
/db_xref="taxon:10090"
           Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .2628
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     prepare mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FANTOM Consortium.
                                                                                                                                                                                                                                                                                     11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1076861
                                                                                                           10349636
                                                                                                                                                                                                                                                                20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rourge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                     AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                             PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                      MEDLINE
                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                 TITLE
```

160

703

100

523

463

80

292

40

120 583 140 643

셤

엄 à

ò

```
BF565047
UI-R-BO1-ajm-g-02-0-UI.rl UI-R-BO1 Rattus norvegicus cDNA clone
UI-R-BO1-ajm-g-02-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 LeuPheGlyLeuAlaTyrPheAlaSerValLeuThrThrIleGlyAsnTrpLeuArgAla 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                         160
                                                                                                                                                                                                                                471
                                                                                                  140
                                                                                                                                                                               411
                         231
                                                   100
                                                                           291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 469) Bonaldo,M.F., Lennon,G. and Soares,M.B. Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261 ValserArgArgThrArgAlaGluMetGlyGlyLeuThrAlaGlnAlaAlaSerTrpThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspargieuglyserSerLeuargargGlyileGlyHisIleGlualaIlepheLeuLys
                                                                                                                                                                                                                         |||:::|||
| Iggaaigttagtcagaccaagattcgcatcatctcaacaatcatatttatactatttggc
                                                                                                                                                                                                                                                                                                                                                                          ProglyAspGlyThrGlyGlnAsnSerProAlaTyrGlnProLeuValTrpPheTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                            TrpHisValProProGlyLeuValArgSerLeuSerAlaValLeuPheLeuLleGly
                                                                                                                                                                                                                                                                                                                                                            LeuGlualarleTyrPheValleValThrLeuThrThrValGlyPheGlyAspTyrVal
  PhelleLysLeuLeuValGluAlaLeuGlyGlyGlyAlaAsnProGluThrSerTrpThr
                                                   AsnSerSerAsnH18SerSerAlaTrpAsnLeuGlySerAlaPhePhePheSerGlyThr
                                                                281 GlyThrValThrAla-----ArgValThrGlnArg-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               discovery
Genome Res. 6 (9), 791-806 (1996)
97044477
8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         291 rGlyProSerAlaProProPro 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGTICCAGCGGCCACCICCA 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BF565047.1 GI:11674777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BF565047
                                                                                                                                                                                                                                                                                          472
                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                 141
                                                                                   232
                                                                                                                                       292
                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
BF565047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                       셤
                                                                                                                                                                                                                 Š
            음 성
                                                          8
                                                                                   g
                                                                                                             8
                                                                                                                                 연
                                                                                                                                                               ò
                                                                                                                                                   1113 bp DNA linear GSS 17-DEC-2003
Homo sapiens KCNK2 gene, VIRTUAL TRANSCRIPT, partial sequence,
AV41806.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisGlyArgAspGlnPheLeuArgAspHisProCysValSerGlnLysSerLeuGluAsp 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaLeuValPheGlnAlaLeuGluGlnProHisGluGlnGlnAlaGlnLysLysMetAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                  Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 1113)
Clark, A.G.; Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Perritara, S., Wango, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
                                     323
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetArgSerThrThrThrLeuLeuAlaLeuAlaLeuValLeuLeuTyrLeuValSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               311 laPro------BroalaValValGluProAlaGlyArgProG
                                                            952 paccaganecrocorgrapagagaccchercrorganccaccheccage
                                                                                                                                                                                                                                                                                                                                                                                                          2 (bases 1 to 1113)

Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1113
149
59
87
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                         323 lyserproAla-ProAlaGluLysValGluThr 333
                                                                                                                                                                                                                                                                                                                                                                                      cience 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .1113
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-2 (1-398) x AY418065 (1-1113)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="KCNK2"
/locus_tag="HCM6433"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                        AY418065.1 GI:39774025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.16e-49
778.00
67.53%
48.38%
37.42%
                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                  gene trios
                                                                                                                                                                                                                                                                                                                                                                                                       4671302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                         PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                 RESULT 14
AY418065
                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

g

셤 ò

ò 셤 8

280

831

891

220 651

```
Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
University of Towa
375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA
781: 319 335 8256
Fax: 319 335 9555
Email: bento-soares@uiowa.edu
cDNA Library Preparation: M.B. Soares Lab Clone distribution:
clones will be available through Research Genetics (www.resgen.com)
This clone is also available through the I.M.A.G.B. Consortium at
LLML (info@nage.llnl.gov). IMAGE ID= 1798469
Seq primer: M13 Forward.

Location/Qualifiers
                                                                                                                                                                                          LeuPheGlyMetLeuLeuAlaGlyValGlyAspArgLeuGlySerSerLeuArgArgGly 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IleGlyHisileGlualarlePheLeuLysTxpHisValProProGlyLeuValArgSer 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGlySerAlaPhePhePheSerGlyThrIleIleThrThrIleGlyTyrGlyAsnIle 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValLeuHisThrAspAlaGlyArgLeuPheCysIlePheTyrAlaLeuValGlyIlePro 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGTGTGTGGAGCCAGAAGCTGGAGGAGTTCATCAACCTCGTGGCTGAAGCCCTGGGA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGCGCAAACCCAGAAACCAGTTGGACCAATAGCAGCAACCACTCATCAGCTTGGAAC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cresceaececerrerreresessaccarcarcarcarceserresecrates 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTACACACACAGATGCTGGGGGTCTCTTTTGTATCTTCTATGCACTGGTGGGGATCCCA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGTTCGGGATGCTGCTGGCTGGAGTCGGGACCGGCTGGGCCTCCTCTCTGCGCCGGGGC 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyAlaAsnProGluThrSerTrpThrAsnSerSerAsnHisSerSerAlaTrpAsn 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisGluGlnGlnAlaGlnLysLysMetAspHisGlyArgAspGlnPheLeuArgAspHis 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProCysValSerGlnLysSerLeuGluAspPheIleLysLeuLeuValGluAlaLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          469
143
8
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-655-272-2 (1-398) x BF565047 (1-469)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.27e-48
760.00
94.38%
89.38%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  349
                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                       FEATURES
     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

Search ò 셤

completed: February 3, 2005, 03:44:03 me : 4065.14 secs Job time THIS PACE LEFT OUNG

Title: Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

Searched:

```
Fink, M., Honore, E., Duprat, F., Lesage, F. and Lazdunski, M.

Novel mechanically sensitive mammal potassium channel family
activated by polyunsaturated fatty acids and their use particularly
for screening medicines

L. Patent: WO 9945108-A 2 10-SEP-1999;
FINK MICHEL (FR); HONORE ERIC (FR); DUPRAT FABRICE (FR); LESAGE
FLORIAN (FR); CENTRE NAT RECH SCIENT (FR); LAZDUNSKI MICHEL (FR)

Location/Qualifiers

1. 1993

| Location/Qualifiers |
                                                                                                                                      AR156458 Sequence
BD228720 TREKK-lik
AX003047 Sequence
AX003047 Sequence
AX004711 Homo sapi
BC069462 Homo sapi
BC069462 Homo sapi
AX224564 Sequence
AX224580 Sequence
AX224580 Sequence
AX224581 Sequence
AX224581 Sequence
AX224581 Sequence
AX224581 Sequence
AX224580 Sequence
AX224580 Sequence
AX23499 Sequence
AX13999 Sequence
AX31999 Sequence
AX31999 Sequence
AX31999 Homo sapi
AX11765 Sequence
AX31999 Sequence
AX31999 Sequence
AX31999 Sequence
AX31999 Homo sapi
AX311765 Sequence
AX31999 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 07-SEP-2000
                                                                                           AY148474 Bos tauru
BD277378 Method fo
AR129399 Homo sapi
AR156458 Sequence
BD228720 TREK1-lik
AX03047 Sequence
AX054800 Sequence
                                            BC062094 Mus muscu
AF325671 Rattus no
AF385402 Rattus no
                               U73488 Mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="unnamed protein product; Traak"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /proteIn_id="CAC07711.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AX018706 1993 bp
Sequence 2 from Patent WO9945108
                             MMU73488
BC062094
AF325671
AF385402
                                                                                                                                                                                                                                                                                                                                                                  AK123409
CQ727608
AYS53324
AF196965
AF385401
                                                                                                                                                                                                                                                      AF004711
AX224564
AX224579
AX224580
AX224582
AX224581
CQ841792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX686982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AX018706.1 GI:10042827
11644
1713
1716
2065
2402
2484
2730
2730
1182
1182
AX018706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus sp.
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX018706
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Command line parameters:
-MODEL=frame+ p2n.model -DEV=xlh
-MODEL=frame+ p2n.model -DEV=xlh
-MODEL=frame+ p2n.model -DEV=xlh
-MODEL=frame+ p2n.model -DEV=xlh
-DEG=CA-CAI - J/USPFOT=fastap -SUFFIX=rge -MINNATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-DB-GenEmbl -OPMT=fastap -SUFFIX=rge -MINNATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -GTART=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-UNFNT=pct -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=USO9655772 @CGN 1 1 5970 @runat 02022005 141714 6746 -NCPU=6 -ICPU=3
-NO MAAP -LARAGEQUER*Y -NGG SCORES=0 -WAIT -DSPEDCCK=100 -LONGLOG
-DBV TINEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX018706 Sequence
BD140671 Novel mam
AR156460 Sequence
BD228722 TREKI-lik
                                                                                                         2, 2005, 20:30:41 ; Search time 5212.76 Seconds (without alignments) 3356.607 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                        MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                  GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                             nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                     4526729 segs, 23644849745 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100% ·
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX018706
BD140671
AR156460
BD228722
                                                                                                                                                                                                                                                      Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9999
                                                                                                                                                                          US-09-655-272-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gb ha: *
gb htg: *
gb ow: *
gb ow: *
gb ov: *
gb pl: *
gb pl: *
gb ro: *
gb ro: *
gb ro: *
gb ro: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1993
1993
1994
1994
                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenEmb1:*
                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0
100.0
99.3
99.3
```

Jatabase :

1883 1883 1870 1870

Score

S N Result

1443

```
unitecentiate.

I (bases 1 to 1993)

Novel mammalian potassium channel families having mechanical Novel mammalian potassium channel families having mechanical sensitivity activated by polyunsaturated fatty acid, and method for using them particularly for drug screening patent: JP 2002505102-A 2 19-FEB-2002;

LD Patent: JP 2002505102-A 2 19-FEB-2002;

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE OS Unidentified OS Unidentified OS UPEB-2002

PD 19-FEB-2002

PP 2002505102-A/2

PD 19-FEB-2002

PP 2002505102-A/2

PP 2002505102-A/2

PP 19-FEB-2002

PP 2002505102-A/2

PR 05-MAR-1999 FR 98/02725

PI BRIC HONORE, MICHEL FIRK, MICHEL LAZDUNSKI, FLORIAN LESAGE, PI FABRICE DUPRAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BD140671

Novel mammalian potassium channel families having mechanical sensitivity activated by polyunsaturated fatty acid, and method for using them particularly for drug screening.

BD140671
                                                                                                                                                                                                                                                and method for using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C12N15/09, A61K31/7088, A61K38/00, A61K39/395, A61K39/395, A61K48/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Topology: Linear;
Novel mammalian potassium channel families having mechanical Novel mammalian potassium channel families having mechanical sensitivity
                                                                                                                                                                                                                                                                                                                                        GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                00,A61P5/00,
861P9/00,A61P21/00,A61P25/00,A61P25/28,C07K14/705,C07K16/28,
C12N1/15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PC CI2N15/09, A61K31/7088, A61K38/00, A61K39/395, A61K39/395, A61K39/PC CI2N15/09, A61R39/00, A61P5/00, A61P2/00, A6
GlyLeuAlaTyrPheAlaAlaValLeuSerMetileGlyAspTrpLeuArgValileSer
                                                                                                      1324 GGGCTGGCCTACTTTGCAGCTGTTCTGAGCATGATTGGGGACTGGCTACGGGTGATCTCT
                                                                                                                                                        LystygThrLygGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                              1384 AAGAAGACGAAGGAAGGAAGGAGGAGAACTTCAGAGCGCATGCCGCTGAGTGGACAGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "...oIK39/395,A61R
"...oIK39/395,A61R
"...12N1/21,C12N5/10,C12P21/02,C12P21/08,C12Q1/02,L
ECStrandedness: Double;
CC Strandedness: Double;
CC Topology: Linear;
CC Novel mammalian pocassium channel famil'
CC Sectivated by polyunsaturate.
CC activated by polyunsaturate.
CC activated by polyunsaturate.
FH Key
FT Sour
                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .1993
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD140671.1 GI:23235616
JP 2002505102-A/2.
unidentified
unidentified
unclassified.
                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                              1444
                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                           301
                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
BD140671
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                        · පු
                                                                                                                  a
                                                                                                                                                                        ò
                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValSerGlnThrLysIleArgIle1leSerThrIleIlePheIleLeuPheGlyCysVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyserAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 280
                            /db_xref="G1:10042828"
/translation="MAAPDLLDPKSAAQNSKPRLSFSSKPTVLASRVBSDSAINVMKW
/translation="MAAPDLLDPKSAAQNSKPRLSFSSKPTVLASRVBSDSAINVMKKW
KTVSTIFLVVVLXLIIGAAVEKALEOPOEISORTTIVIOKOPFFIAOREDEL
IQQIVAAINAGIIPLGNSSNQVSHWDLGSSFFFAGTVITTIGFGNISPRTEGGKIFCI
IYALLGIPLFGFLLAGVGDOLGTIFGKGIAKVBDTFTRWNVSGTKIRIISTIIFILFG
CVLFVALDPAVIFKHIEGWSALDAIYFVVITLTTIGFGPYVAGGSDIEYLDFYKEVVVWF
RILVGALAPAYLSAAVLSMTSKKTKEBVGEFRAHAAEWTANVTAEFKETRRRLSV
BIYDKFQRATSVKRKLSAELAGNHNQELTPCMRTCL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrihriledlyPhedlyAsnileSerProArgThrdluGlyGlyLysilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VallleGlnLysGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerpheSerserLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuPheValAlaLeuDroAlaValllePheLvSHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyalaalavalPhelysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0000
                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                            Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                       (1-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                       x AX018706
                                                                                                                                                                                                                                                                               2.51e-164
1883.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ⊣
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                    Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                      Pred. No.:
```

Я

ò

셤

g

ò

g

g δ g ð g ò 셤

ò

임 ð

à

g à 셤 ð ద 8 g

ò

```
1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlySerAspIleGluTyrLeuAspPheTyrLysProvalValTrpPheTrpIleLeuVal 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      963
                                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                        783
                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                   843
                                                                                                                                                                                                                                                                                                                                                             723
                                                                                                                                                                                                                                                                                                                   663
                                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                                        603
                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeupheValalaLeuproAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11eTyrAlaLeuJeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964 Archareccinecressaninecerritiescrificiacisserisserississes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValSerGlnThrLys1leArglle1leSerThr1le11ePhe11eLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrintliedlyPheGlyAsnileSerProArgThrGluGlyGlyLysilePheCysile
                                                                                                                                                                                                                                                                                                                                                     GluLeulleGlnGlnrleValAlaAlaileAsnAlaGlyileIleFroLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                          ValMetLysTrpLysThrValSerThrIlePheLeuValValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                           GlyAlaAlaValPheLySAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                    ValileGinLysGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                    SerpheSerSerlygProThrValLeuAlaSerArgValGluSerAspSerAlalleAsn
                                                                                                                                                                                                                                                                  (mouse)
                                                                                                               1994
368
0
0
0
 ce 1. .1994
/organism='Mus musculus
Location/Qualifiers
                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                     1. 1994
/organism="Mus musculus"
/mol type="genomic DNA"
/db_xref="taxon:10090"
                                                                                                                                                                                         US-09-655-272-4 (1-370) x BD228722 (1-1994)
                                                                                                           4.01e-163
1870.00
100.00%
100.00%
99.31%
Key
source
                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1204
                                                                                                                                                                                                                                                                                                                                                                      664
                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                724
                                                                                                                                                                                                                                                                                                                                                                                                                                      101
FF
                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                             21
                                           source
                                                                                                                      No.:
                                FEATURES
                                                                                     ORIGIN
                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                  Б
                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (Dases I to 1994)
RS Meadows, H.J. and Chapman, C.G.
RS Meadows, H.J. and Chapman, C.G.
RS Meadows, H.J. and Chapman, C.G.
RS Mus musculus (mouse)
RNITHKLINE BEEGIAM PLC
OS Mus musculus (mouse)
RP 02-0251123-A/3
RD 16-ARR-2002
RP 02-DEC-1998 JP 2000528670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ပ္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                         1383
                                                                                                                                                                                                                                                                                                                                                                                                1443
                                                                                                                                            1143
                                                                                                                                                                                     1203
                                                                                                                                                                                                                               1263
                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                  1083
                                                                                                                                                                                                                                                                                                                                        LystysThriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                              GINArgAlaThrSerValLysArglysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                      1023
                                                                                                                                                                240
                                                                                                                                                                                                                                                     280
                                                                            200
                                                                                                                       220
                                                                                                                                                                                                           260
                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cl2N1/21,
PC Cl2P21/02,Cl2Q1/68,G01N33/15,G01N33/50,Cl2N15/00,A61K37/02
TREK1-like two-hole potassium channel
                                                                                                                                                                                                                                                                                              ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                    Leupheval AlaLeuproAlaval IlepheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                           AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                        GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp DNA channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1994 b.
TREK1-like two-hole potassium
BD228722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BD228722.1 GI:33038492
JP 2002511233-A/3.
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                      1384
                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                      341
                                                                                                                                                                                                                                                                                   1264
                                                                                                                                                                                                                                        1204
                                                                                                                                                                                                                                                                                                       281
                                                                                                                                                                                                                                                                                                                             1324
                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                        1024
                                                                                                                                                  1084
                                                                                                                                                                       221
                                                                                                                                                                                             1144
                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                             261
                                        161
                                                             964
                                                                                                                              201
                   904
                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
BD228722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
```

g

à

ò

g ò

엄 ò 유 δ 셤 ò qq

qq ò

8 8 8

원 수 명

ିଧ

Db 724 GIGHTCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCAACTCCACCAGCTGGAC 783	Oy 101 GlubeuileGinGlnileValalaalaileAsnalaGlyileileProLeuGlyAsnSer 120 	Qy 121 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAlaGlyThrVallle 140	Oy 141 ThrThrIleGlyPheGlyAenIleSerProArgThrGluGlyGlyLysIlePheCysIle 160	Qy 161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180	Qy 181 LeuGlyThrIlePheGlyLysGlyIleAlalysValGluAspThrPheIleLysTrpAsn 200	Oy 201 ValSerGlnThrLyslleArglleIleSerThrIleIlePheIleLeuPheGlyCysVal 220	Qy 221 LeuPheValAlaLeuProAlaValIlePheLyBHisIleGluGlyTrpSerAlaLeuAsp 240	Qy 241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 260	Qy 261 GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 280	Oy 281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300 	OY 301 LystysThriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320	Qy 321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340	Qy 341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAenGln 360	Oy 361 GluLeuThrProCygMetargThr 368 	RESULT 6 BD273739 BD273739 SCOUS BD273739 3580 bp DEFINITION Method for identifying anesthetic drug. ACCESSION BD273739		OKCANLSM MUB MUBCULUB Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. REFERENCE 1 (bases 1 to 3580) AUTHORS Lazdunski,M., Honore,E., Lesage,F., Romey,G. and Patel,A.J.
	Qy 281 GlyLeuAlaTyrPheAlaAlaValLeuSerWetIleGlyAspTrpLeuArgValIleSer 300 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Oy 301 LysLysThrLysGluGluValGlyGluPheArgalaHisAlaalaGluTrpThrAlaAsn 320	Qy 321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGlulleTyrAspLysPhe 340 Db 1444 GTCACGGCCGAGTTCAAGGAACGAGGCGCTGAGCGTGGAGATCTACGACAAGTTC 1503	Qy 341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360 Db 1504 CAGCGTGCCACATCCGTGAAGCGGAAGCTCTCCGCAGAGCTGGCGGGCAACCACACCACACCAGACCAGG 1563	Oy 361 GluLeuThrProCysMetArgThr 368 Db 1564 GAACTGACTCCGTGTATGAGGACC 1587	RESULT 5 AX003051 LOCUS AX003051 AX003051 AX003051 AX003051 AX003051 AX003037762	AX003051.1 GI:9926936	_	REFERENCE 1 AUTHORS Chapman, C.G. and Meadows, H.J. TITLE Trek-1 like two pore potassium channel JOURNAL Patent: WO 9937762-A 5 29-JUL-1999;	SMITHKLINE BEECHAM PLC (GB) FEATURES Location/Qualifiers Source 11994 /organism="Mus musculus"_		Alignment Scores: Pred. No.: Pred. No.: 1870.00 Matches: 368 Percent Similarity: 100.00% Conservative: 0	: 100.00% Mismacches: 99.31% Indels: 6 Gaps:	US-09-655-272-4 (1-370) x AX003051 (1-1994) Qy	21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 	Oy 41 ValMetLygTrpLygThrValSerThrIlePheLeuValValLeuTyrLeuIleIle 60	Qy 61 GlyAlaAlaValPheLyBAlaLeuGluGlnProGlnGluIleSerGlnArgThrTle 80

```
and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 o mRNA linear ROD 15-APR-1999
subunit mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                    1263
                                                                                                                                                                            1323
                                                                                                                                                                                                                                      1383
                                                                                                                                                                                                                                                                                               1443
                                                                                                                                                                                                                                                                                                                                                         1503
                                                         1203
1084 GTIAGTCAGACGAAGAITCGIATCATCTCCACCATCATCTTCATCCTGTITGGCTGTGT 1143
                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                   320
                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                   341 GInArgAlaThrSerValLyBArgLySLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (Sase 1 to 3580)
Fink, M., Duprat, F., Lesage, F., Reyes, R., Romey, G., Heurteaux, C. an Lazdunski, M.
                                                                                                                                                280
                                                                                        260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cloning, functional expression and brain localization of a novel unconventional outward rectifier K+ channel EMBO J. 15 (24), 6854-6862 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (07-OCT-1996) IPMC, CNRS, 660, route des Lucioles, Valbonne 06560, France 3 (bases 1 to 3580) Fink, M. Duprat, F., Lesage, F., Reyes, R., Romey, G., Heurteaux, C. Lazdunski, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 3580)
Fink, w. Duprat, F., Lesage, F., Reyes, R., Romey, G., Heurteaux, C.
Lazdunski, M.
Direct Submission
                                                                                                                                                                                                                                                                                   ValThralaGluPheLysGluThrargArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                            LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                 CTCTTTGTGGCTCTCCCCTGCGGTCATATTCAAGCACATAGAAGGCTGGAGCGCCCTGGAC
                                                                                     241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGlY
                                                                                                        GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                               LeuphevalalaLeuproAlavalllepheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    route des Lucioles,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (15-APR-1999) IPMC, CNRS, 660, route des Luciole
Valbonne 06560, France
Sequence update by submitter
On Apr 15, 1999 this sequence version replaced gi:1794281.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
/mol type="mRNA"
/db_xref="taxon:10090"
/tissue_type="brain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MMU73488 3580 bp
Mus musculus TREK-1 K+ channel s
U73488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1564 GAACTGACTCCGTGTAGGAGGACC 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   U73488.2 GI:4584798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9003761
                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                          261
                                                                    1144
                                                                                                                            1204
                                      221
                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MMUT3488
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REMARK
COMMENT
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                  셤
                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                     ₽
                                                            g
                                                                                                ð
                                                                                                                                                      Š
       AL PATENT: JP 2002536017-A 2 29-OCT-2002;
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)
OS MUS musculus (mouse)
PN 192 200-2036017-A/2
PN 29-OCT-2002
PF 11-FEB-2000 JP 2000598636
PR 12-FEB-1999 US 60/11972,11-FEB-2000 US 09/503089 PI
MICHEL LAZDUNSKI, FRIC HONORE, FLORIAN LESAGE, GEORGES ROMEY, PI
AWANDA J PATEL
PC C1201/02,C12R1:91, (C1201/08,G1N33/15,G01N33/50/) PC (C1201/02,C12R1:91), (C1201/08,G1N33/50/) PC (C1201/02,C12R1:91), (C1201/08,G1R1:91), (C1201/08,G1R1:91), (C1201/08,G1R1:91), (C1201/08,G1R1:91), (C1201/08,G1R1:91)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141 ThrihrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLysilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          valileGlniyeGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101 GluLeulleGlnGlnIleValAlaAlaileAsnAlaGlylleileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValSerGlnThrLysIleArglleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAla1leAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Metalaalaproaspleuleudspprolysseralaalaglnasnserlysproargleu
                                                                                                                                                                                                                                                                                                                                           3580
367
0
1
0
0
                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                          (484). .(1719)
Location/Qualifiers
                                                                                                                                                                                                                                       1. .3580 // Organism="Mus musculus" /mol_type="genomic DNA" /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-4 (1-370) x BD273739 (1-3580)
                                                                                                                                                                                                                                                                                                                                            3.04e-162
1864.00
99.73%
99.73%
98.99%
                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                   No.:
                     JOURNAL
                                                                                                                                                                                                                                FEATURES
                                                   COMMENT
```

셤

임 ò

g

ð g ò ద ò 엄 ò

ò

임 à g 8 a à g

ò

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Maus musculus

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

El (Bases 1 to 3228)

Strausberg, R.L., Feingold, E.A., Grouse, D.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moorer, T. Marusina, K.J., Warisin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Ugdin, T.B., Toshiyuki, S. Carninci, P., Prange, C., Rah, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Sheute, B.D., Butterfield, Y.S., Krzywinski, M., Touchman, J.W., Green, E.D., Butterfield, Y.S., Krzywinski, M., Sanilus, D.E., Schmutz, J., Myers, R.M., Schein, J. B., Voles, S.J., and Marra, M.A.
                                                                                                                          1323
                                                                                                                                                                                                                                                                                                 1443
                                                                                                                                                                                                                                                                                                                                                                                 1503
                                                                                                                                                                                                             1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1504 CAGCGTGCCACATCCGTGAAGCGGAAGCTCTCCGCAGAGCTGGCGGCGAACCACAACCAG 1563
                                     1204 GCTATCTATTTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTACGTGGCAGGT 1263
                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROD 06-JAN-2004
2, mRNA (cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                            GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                280
                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (13-NOV-2003) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                    GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                        LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                               ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                    1444 GTCACGGCCCGAGTTCAAGGAAACGAGGGGGGCGCTGAGGGGGGGAACTACGACAAGTTC
                                                                                                                          1264 GGATCAGACATTGAATATCTGGACTTCTACAAGCCTGTGGTGGTGGTTCTGGATCCTCGTT
                                                                                GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC062094 3228 bp mRNA linear Mus musculus potassium channel, subfamily K, member clone MGC:69619 IMAGE:6848897), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1564 GAACTGACTCCGTGTAGGAGGACC 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequences
i. U.S.A. 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BC062094.1 GI:38566066
MGC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proc. Natl. Acad. Sci.
12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human and mouse cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 3228)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg, R.
                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                            321
                                                                                  261
                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                              341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
BC062094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                          셤
                                                                                Š
                                                                                                             g
                                                                                                                                                                Š
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                 કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                  /translation="MAAPDLDPKSAAQNSKPRLSFSSKPTVLASRVESDSAINVMKW
YSTYTEVVVVLYLIIGAPURYRALEGPQBISQFTTVIYQKPTFAQHACNSFEDEL
IQQIVAAINAGIIPLGANSSNQVSHWDLGSSPFRATTVIYQKPTFAQHACNSFEDEL
IYALLGIPLFGFLLAGVGDQLGTIFGKGIAKVEDTFIKWNVSQTKIRIISPTIFFLEG
CVLFVALLBAYIFKHIEGWSALDAIYFVVITLTIGFGDYVAGSBIEFLIDFYREVVWF
WILNGLAYFAAVLSMTGDWLRYISKTKEEVGBFRAHAEWTANVTAEFEKFTRRLSV
EIYDKFQRATSVKRKLSAELAGNHNQELTPCRRTLSVNHLITSBREVLPPLLKAESIYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1144 CTCTTTGTGGCTCTCCCTGCGGTCATATTCAAGCACATAGAAGGCTGGAGCGCCCTGGAC 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePhePhaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLysilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604 GTTATGAAATGGAAGACAGTCTCCACGATTTTCCTGGTGGTCGTCCTCTACCTGATCATC 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCAACTCCACCGAGCTGGAC 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         904 ACAACCATAGGATTTGGAAACATCTCCCCACGAACTGAAGGTGGAAAAATATTCTGCATC 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484 ATGGCGGCCCCTGACTTGCTGGATCCCAAGTCTGCTGCTGCTGAGAACTCCAAAACCGAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    544 TCATTCTCCTCAAAACCCACCGTGCTTGCTTCCCGGGTGGAGTGACTCGGCCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyAlaAlaValPheLyBAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGCCGCGGTTTCAAGGCATTGGAGCAGCCTCAGGAGATTTCCCAGAGGACCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Metalaalaproaspleuleuaspprolysseralaalaginasnserlysproargleu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACTCATCCAGCAAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValSerGlnThrLys1leArglle1leSerThr1leIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                            3580
367
0
1
0
                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
K+ channel
                 /codon_start=1
/product="TREK-1 K+ channe1
/protein_id="AAC53005.2"
/db_xref="G1:4584799"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-3580)
                                                                                                                                                                                                                                                         NGLTPHCAGEDIAVIENMK"
'note="pore-forming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               x MMU73488
                                                                                                                                                                                                                                                                                                                                            3.04e-162
1864.00
99.73%
99.73%
                                                                                                                                                                                                                                                                                                                                                           Score:
Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                              Pred. No.:
```

ò ద ò g 8 ద 8 8 8

셤 ઠે 쉱 ð g ò a ò g 8 a ઠે 요

```
ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyLeualaTyrPheAlaAalaValLeuSerMetIleGlyAspTrpLeuargVallleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuphevalalaLeuproAlavalIlePheLysHisIleGluGlyTrpSerAlaLeuAsP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLyGlyFilePheCysile
                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AlaileTyrpheValValileThrieuThrihrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValile
                                                                                  GTGGCGCCCCTGACTTGCTGGATCCCAAGTCTGCTGCTGCTAGAACTCCAAACCGAGGCTC
                                                                                                             SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                           ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                              GlyalaalavalPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                  ValileGiniysGinThrPheileAlaGinHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                   00
  Indels:
                                      (1-3228)
                                       x BC062094
    98.57%
10
                                           (1-370)
                                           US-09-655-272-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                        325
                                                                                              25
                                                                                                                     21
                                                                                                                                                                          41
                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                     205
                                                                                                                                                                                                                                                                                                      265
                                                                                                                                                                                                                                                                                                                                 101
     Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                              요
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                              8
                                                                       ઠ
                                                                                              셤
                                                                                                                        ò
                                                                                                                                             <u>.</u>
                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /yeure nount rans, Region: Ion transport protein. This /note="ton trans, Region: Ion transport protein. This family confains Sodium, Potassium, Calcium ion channels. This family is 6 transmembrane helices in which the last two helices flank a loop which determines ion selectivity. In some sub-families (e.g. M channels) the domain is repeated four times, whereas in others (e.g. K channels) the protein forms as a tetramer in the membrane. A bacterial structure of the protein is known for the last two helices but is not the Pfam family due to it lacking the first four helices.

/db_xref="CDD:pfam00520"
                                                                                                                                                                                                                clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LIANL at: http://image.llnl.gov Series: IRAK Plate: 132 Row: p Column: 11 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6754431. Location/Qualifiers
                                                                                              Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy, George Yang, Scott Zuyderduyn, Marco Marra.
                                                                                                                                                                                                                                                                                                                                          | db_xrefe="taxon:10090"
|clone="MGC:69619 IMAGE:6848897"
| tissue type="Brain mouse, 13.5,14.5,16.5,17.5 dpc"
| clone lib="th" BMAP_FYO"
| lab hose="Wector: pXX-ASC"
                                     Iowa
                    Tissue Procurement: Dr. Jim Lin, University of Iowa CDNA Library Preparation: M. Bento Soares, University of CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Genome Sequence Centre, BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3228
365
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="synonym: TREK-1"
/db_xref="LocusID:16526"
/db_xref="MGI:109366"
                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6"
               Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           397. 546
/gene="Kcnk2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1,46e-161
1856.00
99,46%
                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="Kcnk2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="Kcnk2"
                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .3228
                                                                                                                                                                                                                                                                                                  1, .3228
                                                                                          info@bcgsc.bc.ca
```

gene

FEATURES

CDS

160

444

140

120

384

100

324

264

80

144

40

84

204

9

180 564 200 624 260

804

240

744

280

924

984

Percent Similarity: Best Local Similarity:

Alignment Scores:

ORIGIN

.. No.

misc_feature

g

ઠે

셤

ઠ

```
1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341 GlnArgAlaThrSerValLygArgLygLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  340
                                                                                268
                                                                                                                                               328
                                                                                                                                                                                100
                                                                                                                                                                                                               388
                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                448
                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                568
                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 988
                                                                                                                80
                                               9
                                                                                                                                                                                              389 GAACTCATCCAGCAAATAGTGACGGCCATAAATGCAGGGATTATCCCCTTAGGAAACAAC
                                                                                                                                                                                                                                                                                                               SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
                                                                                                                                                                                                                                                                                                                                141 ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     749 CTCTTCGTGGCTCTCCCCGCCGTCATATTCAAGCACATAGAAGGCTGGAGGTGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1049 GICACAGCCGAGITCAAGGAAACAAGGAGGCGGCTGAGTGGGAGATCTAIGACAAGGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1109 CAGCGTGCCACGTCGAAGCGGAAGCTCTCTGCAGAGCTGGCGGGTAACCAAGCAGA
               rcerrcrcccaaaacccaccerccrrccrccccccacagagraacrccccarraar
                                                                      209 GTTATGAAATGGAAGACGGTCTCCACGATTTTCCTGGTGGTCGTCCTCTACCTGATCATC
                                                                                                               GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                              269 GGAGCCACGGTGTTCAAGGCGTTGGAGCAGCCTCAGGAGATTTCTCAGAGGACCACCATT
                                                                                                                                                                              VallleGlnLysGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                 GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                  509 ACAACCATAGGATTTGGAAACATCTCCCCACGAACTGAAGGTGGAAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTGGAACCATATTTGGAAAAGGAATTGCCAAAGTGGAGGACACATTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               valSerGlnThrLysIleArg1leIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTAGTCAGACCAAGATTCGTATCATCTCGACCATCATCTTCATCCTGTTTGGCTGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuPheValAlaLeuProAlaValIlePheLy8HisIleGluGlyTrpSerAlaLeuABp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                809 GCCATCTACTTTGTGGTCATCACTCTGACCACCATTGGATTTGGCGATTATGTGGCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 929 GGGCTGGCCTACTTTGCGGCTGTTCTGAGCATGATTGGAGACTGGCTACGGGTGATATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaileTyrPheValValileThrLeuThrTleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1169 (
                  149
                                                   41
                                                                                                                61
                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  629
                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AF385402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                         셤
                                                                                                                                            유
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                               8
                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                       ઠે
                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /produce=22 domain potassium channel KCNK2"
/produce=22 domain potassium channel KCNK2"
/brotein_id="AALO1159.1"
/db_xref=21:15528852"
/translation="MisAssreregyTracyAarDLLDPKSAAQNSKPRLSFSAKPTVL
/srrespsatuvmkwkrvstTFLVVVLYLIIGATVFRALEGPCBISGRTTYJOKQNF
TARNESDSATUVMKWKTVSTTFLVVLYLIIGATVFRALEGPCBISGRTTYJOKQNF
TARNESDSATUVMCWTLGTPLFGFLLAGVGDQLGTIFGKGIAKVBDTFTKWNVSG
TKIRISTIFTLFGCVLFVALDAVFFKHIEGWSALDAIYFVVITLTTIGFGDYVAGG
SDISYLDFKRVVWFWILVGLAYPLANJSMIGDMLRVISKKTKEEVGEFRAHAAEWTA
NVTAEFFGTRRRLSSVETYDKPQRATSVVKRKLGABLAGNHNQELTPCRRTLSVNHLTSE
REVLPPLLKAESIYLNGLTPHCAAEDIAVIENMK"
                                  1104
                                                                                                                                                                08-SEP-2001
     360
                                                                                                                                                               3187 bp mRNA linear ROD 08-SEP-2003 domain potassium channel KCNK2 mRNA, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   148
                                                                                                                                                                                                                                                                                                                                                              Goldstein, S.A. hippocampal potassium leak into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ដ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers

1. 3187

/ organism="Rattus norvegicus"

/ organism="Rattus norvegicus"

/ db xref="mkNA"

/ db xref="type="brain"

44. .1374

/ note="similar to product encoded by Genbank accession number AF065163"

/ codon_start=1
GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                    89 GTGGCGCCCCTGACTTGCTGGATCCCAAGTCTGCTGCTGAGAACTCCAAAACCGAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetalaalaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (01-DEC-2000) Pediatrics, Section of Developmental Biology and Biophysics, Yale University Medical School, Boyer Center for Molecular Medicine, 295 Congress Avenue, New Haven, 06536, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   w 4 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 3187)
Bockenhauer, D., Zilberberg, N. and Go KONK2: reversible conversion of a hi voltage-dependent channel
Nat. Neurosci. 4 (5), 486-491 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 (bases 1 to 3187)
Bockenhauer, D. and Goldstein, S.A.N.
Direct Submission
                                                                                (1-3187)
                                                                  GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                  rat)
                                                                                                                                                                                                                                                                                 Rattus norvegicus
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                  Rattus norvegicus (Norway
                                                                                                                                                                                                                                GI:15528824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.51e-160
1841.00
98.91%
98.10%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   x AF325671
                                                                                                                                                                AF325671
Rattus norvegicus 2P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                AF325671.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                AF325671
                                                                                                                                                                                                                                                                                                                                                                                                                                               11319556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                 361
   341
                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                 AF325671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query DB:
```

요

ò

ઠે

240

688 220 748 260

```
A11484/4
Bos taurus potassium channel subfamily K member 2 (Kcnk2) mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                     975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryotta; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                          915
                                                                                                                                                                                                                                                                                855
                                                                                                                                                                  180
                                                                                                                                                                                                               200
                                                                                                                                                                                                                                     795
                                                                                                                                                                                                                                                          220
                                 120
                                                                             140
                                                                                                 615
                                                                                                                        160
                                                                                                                                             675
                                                                                                                                                                                      735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                   AlaileTyrPheValValileThrLeuThrIhrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                             SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValile
                                                                                         LeuglyThrilePhedlyLysGlylleAlaLysvalGluAspThrPhelleLysTrpAsn
                                                                                                                                                                                                                              ValSerGlnThrLys1leArgllelleSerThrllellePhelleLeuPheGlyCysval
GluLeuileGlnGlnileValAlaAlaileAsnAlaGlyileileFroLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AY148474.1 GI:23630232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 1534)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (cow)
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                    928
                                                                                                                                                                                                                                            736
                                                                                                                                 141
                                                                                                                                                      919
                                                                                                                                                                            161
                                                                                                                                                                                                 919
                                                                                                                                                                                                                        181
                                         101
                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
AY148474
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                  용
                                                                                                                                                                      챵
                                                                                                                                                                                              Ω
                                                                                                                                                                                                                       8
                                                           g
                                                                                     ò
                                                                                                       셤
                                                                                                                           8
                                    ፟
                                                                                                                                                                                                                                                                                                                                                                               /product="rand-d" |
/product="rand-d" |
/product="rand-d" |
/protein id="AAL95708.1" |
/db_xref="GI:19716296" |
/db_xref="GI:19716296" |
/db_xref="GI:19716296" |
/translation="WIASASRERPGYTAGVAPPDLIDPKSAAQNSKPRISFSAKPTVL  
/kranslation="WIASASRERPGYTAGVAFVALICATVERALEOPOEISORTTIVIOKONF
ASRVESDSAINWKKWTVSTIFLVVVLYLIIGATVERALEOPOEISORTTIVIOKONF
ASRVESDSAINWKKWTVSTIFLOVVLYLIIGATVERALEOPOEISORTTIVIOKONF
TRIBILISTILIFITEGVLFANDANIFWHIGGWSAGGTKRIFFKKGIARKREFKANVSGGTKIRNVSQ
GNISPRIDFKREVVWFWILVGLAYFAANISMIGOWLRVJKKKEEVGEFRAHAABFWTA  
SDIEYLDFYKREVVWFWHILVGLAYFAANISMIGOWLRVJKKKKEEVGEFRAHAABFWTA  
NVTABEFKETRRILSVEIYDKFQRATSVKRKLSAELAGNHNQELTPCRRTLSVNHLTSE  
REVLPPLIKAESIYLNGLTFHCAABDIANIENWK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              valileglnLysGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyalaalavalPhelysalaleuGluGlnProGlnGluIleSerGlnArgThrThrIle 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
          AF385402 3291 bp mRNA linear ROD 07-MAY-2002 Rattus norvegicus tandem pore domain potassium channel TREK-1 mRNA, complete cds. AF385402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetalaalaproaspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                      novel
TREK-2
                                                                                                                                1 (bases 1 to 3291)

(Gu, W., Schlichthorl, G., Hirsch, J.R., Engels, H., Karschin, C., Karschin, A., Derst, C., Steinlein, O.K. and Daut, J. Expression pattern and functional characteristics of two now spression pattern and functional characteristics of two now spines in pattern of the two-pore-domain potassium channel TREI J. Physiol. (Lond.) 539 (Pt 3), 657-668 (2002)
                                                                                                                                                                                                                                                               Humangenetics,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3291
361
4
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                               Tolores 1 to 3291)
Deret, C. and Daut, J.
Direct Submission
Submitted (25-MAY-2001) Lab EEG, Inst. of
Wilhelmstr. 31, Bonn 53111, Germany
L. a2291
                                                                                                                                                                                                                                                                                                      /organism="Rattus norvegicus"
/mol type="mRNA"
/strain="Wistar"
/db_rref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-3291)
                                                                                Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370) x AF385402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.66e-160
1841.00
98.91%
98.10%
97.77%
                                                            AF385402.1 GI:19716295
                                                                                                                                                                                                                                                                                                                                                        .51. .1431
'note="KCNK2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity:
                                                                                                                                                                                                                         11897838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match:
DB:
                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
                     LOCUS
DEFINITION
                                                                                                 ORGANISM
                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                  JOURNAL
MEDLINE
                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                             REFERENCE
                                                                                                                                                                                                                         PUBMED
                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

us-09-655-272-4.rge

```
1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1027 GGGCTTGCTTACTTCGCTGCTGTCCTGAGTATGATTGGAGACTGGCTCCGAGTGATATCA 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 17-JUL-2003
                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                              906
                                                                                                                                                                                 200
                                                                                                                                                                                                                  786
                                                                                                                                                                                                                                                                                         846
                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                     996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                        999
                                                                                                            180
                                                                                                                                           726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1216; Li (Bases I to 1236)
Lazdunski, M., Honore, E., Lesage, F., Romey, G. and Patel, A.J. Method for identifying anesthetic drug Patent: JP 20022536017-A 1 29-OCT-2002; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)
OS Homo sapiene (human)
PN JP 2002536017-A/1
                                                                                                          321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                               LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                               907 GCCATTTATTTTGGGTTATCACCTTAACCACCATTGGCTTTGGCGACTACGTCGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGGGGGGAAAATATTCTGTATC
                                                                                                                                                                                                                  727 CTAGGGACCATATTTGGAAAAGGAATTGCAAAAGTGGAAGATACATTTATTAAATGGAAT
                                                                                                                                                                                                                                                       ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                         787 GTTAGTCAAACCAAGATACGAATCATCTCCACAATCATCTTTATTCTGTTTGGCTGGGTG
                                                                                                                                                                                                                                                                                                                            LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                 241 AlaileTyrPheValValileThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
   547 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTCTTTGCTGGCACTGTTATT
                                       ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OS Homo sapiens (human)
PN 472-2002-236617-A/1
PP 29-C0T-2002
PF 11-FEB-2000 JP 2000598636
PR 11-FEB-1999 US 60/119727,11-FEB-2000 US 09/503089 F
MICHEL LAZDUNSKI, ERIC HONORE, FLORIAN LESAGE, GEORGES ROMEY, PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Method for identifying anesthetic drug. BD273738.1 GI:33083506
JP 2002536017-A/1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
Homo sapiens
                                                                          607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                         141
                                                                                                                                                                                  181
                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
BD273738
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                         g
                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                       臼
                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                    유
                                                                                                  8
                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                       ò
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                            /product = "potassium channel subfamily K member 2"
/product = "potassium channel subfamily K member 2"
/product = "potassium channel subfamily K member 2"
/db_xxefe"GI:2363023"
/translation = "MAAPDiLDPKSAAQNSKPRISFSTKPTVLASRVESDTTINVMKW
KTVSTIFLVVVLXLIIGATVEKALEQPHEISQRTTIVIQKQTPISQHACNSTELDEL
IQQIVAAINAGIPLOMSNOISHWDIGSSFFFAGTVITTIGFGNISPRTEGGKIFCI
IYALLGIPLFGFLLAGVGDQLGTIFGKGIAKVEDTFIKWNVSQTKIRIISTIFILFG
CVLFFALADAIIFKHEGWSALDAIYFVYTLTIGFGDYVAGGSBIETUDFXEVVVWF
WILVGLAYFAAVLSNIGDWLRVISKKTKESGOEFFAHAAEWTANVTAEFKETTRRILSV
RIYKKQRAFSIKKKLSABLAONHNQELTPCRRTLSVNHLASBRDVLPSLLKTESIYL
NGLTPHCAGBEIAVIENIK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GITATGAAATGGAAGACGGTCTCCACGATTTCCTGGTGGTCGTCCTCTATCTCATCATC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCCACCGTGTTCAAAGCCTTGGAGCAGCCTCACGAGATTTCCCAGGGACCACCATC 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluLeuileGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                        in Adrenocortical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                               The Ohio State University 333 W. 10th Ave, Columbus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGATCCAGAAGCAGACGTTTATTTCCCAACACGCCTGTGTCAATTCAACCGAGCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACTCATCCAGCAAATAGTGGCAGCAATAAATGCAGGATTATACCTTTAGGAAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetalaalaProaspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGCGCCCCTGATTTGCTGGATCCTAAGTCTGCTGCTCAGAACTCCAAACCCAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerPheSerSerLysProThrValLeuAlaSerArqValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                  two-pore potassium
Enyeart, J.J., Xu,L., Danthi,S. and Enyeart,J.A. An ACTH- and ATP-regulated Background K+ Channel Cells is TREK-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1534
357
7
4
0
                                                                                                                                                                                                                                                                                                                                                                                 /note="Kcnk2 potassium channel; two-
channel; bTREK-1 potassium channel"
                                                       J. Biol. Chem. 277 (51), 49186-49199 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                       Enyeart, J.J. and Enyeart, J.A.
Enyeart, J.J. and Enyeart, J.A.
Direct Submission
Submitted (05-SEP-2002) Neuroscience, Ti
College of Medicine, 5190 Graves Hall,
OH 43210, USA
                                                                                                                                                                                                                                                                                           'tissue_type="adrenal cortex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                   /organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-655-272-4 (1-370) x AY148474 (1-1534)
                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
                                                                                                                                                                                                                                                                                                                           /gene="Kcnk2"
187. .1422
                                                                                                                                                                                                                                                                                                                                           187. .1422
/gene="Kcnk2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4e-160
1836.00
98.91%
97.01%
                                                                                                                                                                                                                  1. .1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                            12368289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                      source
                                                                        PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                 gene
                                                       JOURNAL
                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                               Sas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DRIGIN
```

셤

ઠે

셤

ઠે

원

Š

8 8 8

g

g

ò

ठे

840 300 900

```
KTVSTIFLVVVLYLIGGATVFKALEQPHEISORTTIVIOKOTFISCHSCVNSTELDEL
IQQIVAAINAGIIPLGATSNOISHWDLGSSFFFAGTVITTIGFGNISPRTBGGKIFCI
IYALLGIPLFGFLLAGVGDOLGTIFGKGIAKVBTPTRWGGYKIRIISTIIFILFG
VLFVALDAIIFKHIEGWSALDAITFVVITLTTIGFGPVAGGSDIEYLDFYKEVVWF
VLIVGLAYFAAALSMIGDWLRVISKKTKEBVGSFRAHAAEWTANVTAEFKETRRRLSV
BIYDKFQRAISIKRKLSAELAGWHNQELTPGRRTLSVNHLTNBRDVLPPLLKTBSIYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="AAD47569.1"
/db_xref="G1:5712621"
/translation="WAAPDLLDPKSAAQNSKPRLSFSTKPTVLASRVESDTTINVMKW
                                                                                                                                                                                                     660 route des lucioles, Sophia
                                                                                                                                                                                                                                                                                                                   PRI 29-MAR-2001
complete cds.
                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1236) and patel, A.J., Honore, E., Lesage, F., Fink, M., Romey, G. and Lazdunski, M.
                                                                                                               LystysThriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                      GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                   GlyseraspileGlutytleuaspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patel, A.J., Honore, E., Lesage, F., Fink, M., Romey, G., Lazdunski, M., Edwission Submitted (18-FEB-1999) IPMC, CNRS, 660 route des lu Antipolis, Valbonne 06560, France Location, Qualifiers 1. 1236

1. 1236

Antipolis, Patel Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="two pore domain K+ channel subunit"
                                                                                                                                                                                                                                                                                                                    AF129399 128K-1 potassium channel (KCNK2) mRNA, AF129399 GI:5712620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
/product="TREK-1 potassium_channel"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WI-4396"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nat. Neurosci. 2 (5), 422-426 (1999)
99<u>2</u>54548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /map="between WI:5105 and
                                                                                                                                                                                                                                                                  1081 GAGCTGACTCCTTGTAGGAGGACC 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                     361 GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="KCNK2"
1. .1236
/gene="KCNK2"
                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      channels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10321245
                                                                             281
                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                    RESULT 13
AF129399
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                          ò
                                                                      유성
                                                                                                                   8 %
                                                                                                                                                                   à
                                                                                                                                                                                   g
                                                                                                                                                                                                               à
                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 GluLeuIleGlnGlnIleValAlaAlaileAsnAlaGlyIleileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAgnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLyS11ePheCysI1e 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                              240
                         Я
                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                         20
PC C12N15/09,C07K14/47,C12Q1/02,C12Q1/68,G01N33/15,G01N33/50// (C12Q1/02,C12R1:91),(C12Q1/68,C12R1:91),C12N15/00 CC Nucleic acid molecule coding the human TREK-1 channel FH Key Location/Qualifiers ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGlyThrIlePheGlyLy6GlyIleAlaLy8ValGluAspThrPheIleLy8TrPA8n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Leuphe Val AlaLeuProAlaValilePheLysHisileGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                       GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGlulleSerGlnArgThrThr11e
                                                                                                                                                                         1236
356
8
4
0
                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                        Location/Qualifiers
1. 1236
Organism="Homo sapiens"
/mol type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                     US-09-655-272-4 (1-370) x BD273738 (1-1236)
                                                                                                                                                                           5.76e-160
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                             Best Local Si
Query Match:
DB:
                                                                                                   source
                                                                                                                                                                               Pred. No.:
                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
```

q

ò

g ò

셤 ð

원 ò 엄 à g ò

ò

g ò g ð g 8 셤 à ò

유 ò

셤

ઠે

ઠે

셤

g

8

g

8

g

Š

엄

8

엄

ò

d

ે

ઠે

원 장

```
08-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
|||||||||||||
TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTTGCTGGCACTGTTATT 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       368
  320
                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68
GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACTCATTCAGGAAATAGTGGCAGCAATAAATGCAGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                        PAT
                                                                                                                                                                                                                                 Unknown.
SM Unknown.

Unclassified.

Unclassified.

VCE 1 (bases 1 to 1246)

ORS Meadows, H.Jane. and Chapman, C.Gerald.

LETREKI polypeptides and h.TREKI polynucleotides

RNAL Patent: US 6242217-A 1 05-JUN-2001;

Location/Qualifiers

1246

1246
                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                         1246
356
8
4
0
                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                         DNA
                                                                                                                                                                                       1246 bp
1 from patent US 6242217.
                                                                                                                          (1-1246)
                                                                                                                                                                                        AR156458
Sequence 1 from patent U
AR156458
AR156458.1 GI:15125162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 x AR156458
                                                                                                                                                                                                                                                                                                                                                                                          5.82e-160
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                   RESULT 14
AR156458
LOCUS
DEFINITION
                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                           8 8
                                                                                                     g
                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                  8
                                                                                                                          8
                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                  GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                              40
                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                80
                                                                                                                                      20
                                                                                                                                                          9
                                                                                                                                                                             SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
|||||||||||||
TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGlu1leSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                           ValI1eGlnLygGlnThrPheIleAlaGlnHigAlaCygValAgnSerThrGluLeuAgp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTATECCTTACTEGEAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValSerGlnThrLys1leArg1le1leSerThr1le1lePhe1leLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTAGTCAGACCAAGATTCGCATCATCAACAATCATATTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuPheValAlaLeuProAlaValllePheLySHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTTGTGGCTCTGCCTGCGGTCATATTCAAACACATAGAAGGCTGGAGTGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaileTyrPheValValIleThrLeuThrTleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                  ATGGCGCCCCTGACTTGCTGGTGGATCTTGCCGCTCAGAACTCCGAGGGTC
                                                                                                                                                                                                                                                                                                                              GTGATCCAGAAGCAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATCCTTGTA
                                                                                                                                      Met Ala Ala Pro Asp Leu Leu Asp Pro Lys Ser Ala Ala Gln Asn Ser Lys Pro Arg Leu
                                         1236
356
8
4
0
0
                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                  (1-1236)
   NGLTPHCAGEEIAVIENIK"
                                                                                                                  x AF129399
                                         5.76e-160
1833.00
98.91%
96.74%
97.34%
                                                                                                                  US-09-655-272-4 (1-370)
                                                               Percent Similarity:
Best Local Similarity:
                                Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                               21
                                                                                                                                                                                                   61
                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281
                                                                      Best Local Si
Query Match:
DB:
```

ą d

셤 ò g

ઠે

8 8 8 g a

ပ္ပ

요 상 원

8 8 8

셤

```
AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuglyThrilePheglyLysGlyIlealaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeupheValalaLeuproAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
PC C12P21/02,C12Q1/68.G01N33/15,G01N33/50,C12N15/00,A61K37/02
TREK1-like two-hole potassium channel
FH Key Location/Qualifiers
FT source 1..1246
PT /Organism='Homo sapiens (human)'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThringledlyPhedlyAsnileSerProArgThrdluGlyGlyLyLySilePheCysile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ileTyrhlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValileGinLysGlnThrPheileAlaGinHisAlaCysValAsnSerThrGluLeUASP
                                                                                                                                                                                                                                                                                                                                                             249 GIGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCACAATTCGACGGAGGTGGAT
                                                                                                                                                                                                                 GlyalaalavalphelysalaleuGluGlnProGlnGluIleSerGlnArgThrThrile
                                                                                                                                                                                                                                           SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                        1246
356
8
4
0
                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                               1. .1246
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                          (1-1246)
                                                      Location/Qualifiers
                                                                                                                                                                                         US-09-655-272-4 (1-370) x BD228720
                                                                                                                             5.82e-160
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                       129
                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                               н
                                                                                                                                                                                                                               φ
                                                                                                                                                                                                                                                  21
                                                                                                                                                                   Query Match:
DB:
                                                                  source
                                                                                                                                 No.:
                                                         FEATURES
                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

I (bases 1 to 1246)

S Meadows, H.J. and Chapman, C.G.

TREKI-like two-hole potassium channel

TREKI-like two-hole potassium channel

D Patent: JP 2002511233-A 1 16-APR-2002;

SMITHKLINE BEECHAM PLC

OS Homo sapiens (human)

PN JP 2002511233-A/1

PD 16-APR-2002

PP 2002511233-A/1

PD 16-APR-2002

PP 27-JAN-1998 BP 98306570.3,09-OCT-1998 GB 9822135.1 PI

PR 27-JAN-1998 BP 98306570.3,09-CT-1998 GB 9822135.1 PI

C C12N1/21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ы
                                                                                                                                                                                                                                                                                                                                                                                        PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                  LystysThrIysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                    968
                                                                                                                                                                                                                                                                                                                                                    ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                        260
                                                                                                                                                                                                                           788
                                                                                                                                                                                                                                                             848
                                                                                                                                                                                                                                                                                                 908
                                                                                               200
                                                                                                               809
                                                                                                                                  220
                                                                                                                                                    668
                                                                                                                                                                      240
                                                                                                                                                                                       728
                                                                                                                                                                                                                                            280
                                                           180
                                                                             548
                                         488
                                                                                                                                                                                                                                                                              LeuglyThrilePhedlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                         ValSerGlnThrLys1leArglle1leSerThr11e11ePhe11eLeuPheGlyCysVal
                                                                                                                                            LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                               glyserAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrplieLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TREK1-like two-hole potassium channel. BD228720
                                                                                                                                                                                                                                                                                                                                                                                                                                          1089 GAGCTGACTCCTTGTAGGAGGACC 1112
                                                                                                                                                                                                                                                                                                                                                                                                                                GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD228720.1 GI:33038490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JP 2002511233-A/1.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                    789
                                                                                                                                                                                                                                                                                      281
                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                               729
                                                                                                                                                                                                                                                   261
                                                                                                                      549
                                                                                                                                                         609
                                                                                                                                                                            221
                                                                                                                                                                                              699
                                                429
                                                                  161
                                                                                   489
                                                                                                    181
                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD228720
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                      중
음
당
                                                                                                                                                                                                         ò
```

140

368

248 100 308 120

80

188

128 9

68 40 428 160 488 180 260

788

668 240 728

Search completed: February 3, 2005, 01:34:33 Job time : 5229.76 secs

us-09-655-272-4.rng

Title: Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

Searched:

```
Aaz11915 Human pot
Aag03564 Human GPC
Aas12189 Human pot
Aas12182 Human pot
Aas12184 Human pot
Aas12184 Human pot
Aas12184 Human pot
Aas12184 Human mit
Ad37238 Human TRI
Ad37459 Human TRI
Ad43451 Human TRE
Abk27503 DNA encod
Abn85879 Hypothala
Ad607404 Novel cod
Abn85879 Human TRE
Ad46585 Human pol
Adm4466 Novel bum
Aa14676 Human EST
Ad609633 Novel bum
Aa14676 Human EST
Ad406937 Human h-T
AAh98927 Human h-T
AAh99921 Nucleotid
Adx2737 Human mec
Aaa77105 Human h-T
AAh99921 Nucleotid
Adx2737 Human mec
Aab7836 Human n-T
AAh99921 Nucleotid
Adx2733 Human TWI
Adh51638 Human 123
Adh59921 Nucleotid
Adx2733 Human TWI
Adx3733 Human TWI
Adx3733 Human TWI
Adx363498 Human Dot
Adx68498 Human Dot
Adx68498 Human Dot
Adx68498 Human CDN
Adx98555 DNA encod
Abx31949 Human G p
Aa808552 Human CDN
Ad298555 DNA encod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encoding a mechanically sensitive potassium channel protein TREK-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mechanically sensitive potassium channel protein; TREK-1; polyunsaturated fatty acid; arachidonic acid; riluzole; heart disease; nervous system disease; epilepsy; cardiovascular disease; arrhythmia; neurodegeneration; ischemia; anoxia; hormone secretion abnormality; muscular disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                         ADM44068
AAL44676
AAH98807
                                                                                                                                                                                                                                                                                                                                                         ADE09633
AAA27105
AAH78636
AAA27106
AAA27106
                                                                                                                                             AAI72558
AAD27459
AAD34451
ABK27503
ABN85879
ADE07404
ADA05745
                                                                                                                                                                                                                                                                                                                                                                                                                                           ADI27937
ADH51640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADH51638
ADI27935
AAD58498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADP21365
ABX91950
AAS08652
ADQ98525
ABX91949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADK52549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH99921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
484. .1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ10607 standard; cDNA; 1993 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-FR000404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98FR-00002725
                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                310 4 6 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-1999 (first entry)
                                   21130
221330
221330
221330
221330
221330
221330
22028
22028
22028
22028
22028
22028
2430
2430
2430
                                                                                                                                                                                                                                                                                                                                                                           11182
11182
11182
11257
11257
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
11408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
   3-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9945108-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-SEP-1999,
                                                                                                             AAZ10607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
      Command line parameters:
-MODEL=frame.pan.model.-DEV=xlh
-MODEL=frame.pan.model.-DEV=xlh
-MODEL=frame.pan.model.-DEV=xlh
-MODEL=frame.pan.model.-DEV=xlh
-DE-Q=Cgn2_1/USPTO_spool/USO9655272/runat_0202005_141714_6735/app_query.fasta_1.1102
-DB-N Geneeq_235ep04 -QFMT=fastap -SUFFTX=rng -MINNATCH=0.1 -LOOPCIL=0
-LOOPEXT=0 -UNITS=bite -STRAT=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OOTFMT=pto -NORM=ext -HRAPSIZE=500 -MINLEN=0 -MAXLEN=20000000
-USER=USO9655272_@CGN 1 1 586_@runat_0202005_141714_6735 -NCPU=6 -ICPU=3
-NO MAAP -LARGEQUERY -NGG_COCRES-0 -WAIT -DSPEDCOK=100 -LONGLOG
-DSV_TIMEOUT=120 -WARN TIMEOUT=30 -TRIREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aaz10607 CDNA enco
Aaz00040 Mouse h-T
Aad17497 Murine TR
Aad17496 Human TRE
Aaz00039 h-TREK1 p
Aac90412 Human TRE
                                                                                                             2, 2005, 20:13:51; Search time 566.562 Seconds (without alignments) 3428.193 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                             MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                           8269772
                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                         Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                             4134886 seqs, 2624710521 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                              0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ10607
AAZ00040
AAD17497
AAD17496
AAZ00039
                                                                                                                                                                                                                                                                             , Ygapext
, Fgapext
, Delext
                                                                                                                                                                                                                                                               Xgapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   geneseqn2002as:*
geneseqn2002bs:*
geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  geneseqn2003ds:*
geneseqn2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqn2003cs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Geneseg 23Sep04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn1980s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     genesedn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                               US-09-655-272-4
                                                                                                                                                                                                                                                            Xgapop 10.0 ,
Ygapop 10.0 ,
Fgapop 6.0 ,
Delop 6.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1994
3580
1236
1246
1246
                                                                                                                February
                                                                                                                                                                                                                                             BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.3
99.0
97.3
97.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0
```

Оатараве :

1870 1864 1833 1833

Result

```
1383
                                                                                                                                                                                                                                                                                   1443
                                                                                                                                                                                                                                                                                                                     1203
                                                                                                                                                    1263
                                                                                                                                                                                              1323
                                                                                                                                                                                                                   300
                                                                                                                                                                          280
                                                                                                                                                                                                                                                             320
                                                                                                                                                                                                                                                                                                                                                GlnärgalathrSerVallysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                               260
                                                                                     240
                                                                                                                                                                                                                                LysiysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                         ValThralaGluPheLysGluThrargArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                GlyLeuAlaTyrPheAlaAlaValLeuSerMeilleGlyAspTrpLeuArgVallleSer
                                                                                                                              AlaileTyrPheValValileThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
LeuglyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
             LeuphevalalaLeuproAlavalllePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                         GlyserAspileGluTyrLeuAspPheTyrLysProvalValTrpPheTrpileLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h-TREK1; two pore potassium channel; inflammatory disease; chromosome 1q32; ss.
                                                                                                                                                                                                                                                                                                                                                                                                          GlubeuThrProCysMetArgThrCysLeu 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
484. .1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= a
/product= "h-TREK1'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98EP-00300570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-EP007805
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ00040 standard; DNA; 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse h-TREK1 polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chapman CG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9937762-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-0CT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L2-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Meadows HJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JUL-1999
                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ00040;
                                                                                                                                                                                                                                                                    301
                           1024
                                                 201
                                                                      1084
                                                                                                                1144
                                                                                                                                                         1204
                                                                                           221
                                                                                                                                      241
                                                                                                                                                                               261
                                                                                                                                                                                                                           281
        181
                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                  g
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                   ò
                                                                  g
                                                                                      ò
                                                                                                            ద
                                                                                                                                      à
                                                                                                                                                       셤
                                                                                                                                                                               Š
                        셤
                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | IlenyralaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValileginiysginihrPheileAlaginHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     663
                                                                              New mechanically sensitive potassium channel, used to screen for specific modulators, potential therapeutic agents for heart and nervous system disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                    543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyAlaAlaValPheLysAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrIle 80
                                                                                                                                                The present sequence encodes a mechanically sensitive potassium channel protein designated TREK-1. The protein is activated by polyunsaturated fatty acids, particularly arachidonic acid, and by riluxole. The protein is used to screen for specific modulators which are useful for treating or preventing diseases of the heart and nervous systems in humans and animals, e.g. epilepsy, cardiovascular disease (arrhythmia), encucadegeneration (particularly where associated with ischemia or anoxia), abnormalities of hormone secretion and muscular disease. The protein itself may be used to treat these diseases. Antibodies specific for the protein are used to detect it in tissues, also as therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluLeulleGlnGln11eValAlaAla11eAsnAlaGly1le11eFrOLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrihrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLySilePheCysile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerpheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                  Sequence 1993 BP; 426 A; 570 C; 561 G; 436 T; 0 U; 0 Other;
                                 Ŀ
                                                                                                                                                                                                                                                                                                                   1993
370
0
0
0
                                  Duprat
                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                 Lesage F,
                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                             US-09-655-272-4 (1-370) x AAZ10607 (1-1993)
                                                                                                                                 Claim 7; Page 23-25; 40pp; French
                                  Lazdunski M,
             sci
                                                                                                                                                                                                                                                                                                                   1.58e-213
1883.00
100.00%
100.00%
             (CNRS ) CNRS CENT NAT RECH
                                                                                                                                                                                                                                                                  inhibitors or activators
                                                       WPI; 1999-551038/46.
P-PSDB; AAY30648.
                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                   Fink M,
                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  904
                                    M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
```

ò q ò 셤 ð 유 ઠે g ò ద à 셤

g ò

ò

원

ò

엄

280

260

1383

1323

300

1443

320

1503

360

340

```
1144 CTCTTTGTGGCTCTCCCTGCGGTCATATTCAAGCACATAGAAGGCTGGAGCGCCCTGGAC 1203
                                                                                                                                                                          LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                                                                     1384 AAGAAGAAGGAAGAAGAGGTGGGGGGGGAGTTCAGAGGGGCATGCCGCTGAGTGGACAGCCAAT
                                                                                                                                                                                                                                                                                                                                                                   321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                       Greacegecesagricaaegaaaceaegegecegecreaeceregagarcraceaeaacrre
                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                        1204 GCTATCTATTTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTACGTGGCAGGT
                                                                                                                                                                                                                             GlybeuAlaTyrPheAlaAlaValbeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                              1324 GGGCTGGCCTACTTTGCAGCTGTTCTGAGCATGATTGGGGACTGGCTACGGGTGATCTCT
                                                                                    AlaileTyrPheValValIleThrLeuThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                       GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel nucleic acid encoding a TREK-1 potassium channel protein for
transfecting cells to be used to identify compounds with anesthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product= "Murine TREK-1 potassium channel protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murine; potassium channel protein; TREK-1; anaesthetic; analgesia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ω̈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murine TREK-1 potassium channel protein DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Romey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ľ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lesage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CNRS ) CNRS CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-FEB-1999; 99US-0119727P.
11-FEB-2000; 2000US-00503089.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD17497 standard; DNA; 3580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-FEB-2000; 2000WO-IB000226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    484. .1719
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ы
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lazdunski M, Honore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-549146/50.
P-PSDB; AAE10342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200047738-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               properties.
                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                         1444
                                                                                                                                                       261
                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amnesia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAD17497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
G
                                                                                  Š
                                                                                                             셤
                                                                                                                                                       8
                                                                                                                                                                                     셤
                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTAGGAACTATATTTGGAAAAGGAATTGCCAAAGTGGAAGACACATTTATTAAGTGGAAT 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1084 GTTAGTCAGACGAAGATTCGTATCATCTCCACCATCATCTTCATCCTGTTTGGCTGTGTC 1143
                                                                                                                                 This sequence is the h-TREKI polynucleotide from the mouse, encoding the h-TREKI polypeptide ANY28496. h-TREKI is a two pore potassium channel. The polynucleotide sequence of h-TREKI can be used to diagnose a disease or susceptibility to a disease related to expression or activity of h-TREKI polypeptides. The methods of diagnosis may be used in the treatment of diseases including cancer, pulmonary, cardiovascular, and inflammatory diseases, pain, psychiatric disorders including depression and schizophrenia, neurodegenerative diseases including Alzheimer's, stroke, and head trauma and neurological disorders including migraine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHieTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValSerGlnThrLyslleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544 TCATTCTTCAAAACCCACCGTGCTTGCTTCCCGGGTGAAGTGACTCGGCCATTAAT 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664 GGAGCCGCGGTGTTCAAGGCATTGGAGCAGCCTCAGGAGATTTCCCAGAGGACCACCATT 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCAACTCCACCGAGCTGGAC 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTATGAGAAATGGAAAGACAGACCACGATTTTCCTGGTGGTCGTCCTCTACCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       784 GAACTCATCCAGCAAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                     cancer,
                                                 New two pore potassium channel used for, e.g. treatment of pulmonary, cardiovascular and inflammatory diseases.
                                                                                                                                                                                                                                                                                                                 Sequence 1994 BP; 426 A; 561 C; 561 G; 446 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                    1994
368
0
0
0
                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-655-272-4 (1-370) x AAZ00040 (1-1994)
                                                                                                      Claim 9; Page 25-26; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                   5.59e-212
1870.00
100.00%
100.00%
WPI; 1999-469126/39;
P-PSDB; AAY28497.
                                                                                                                                                                                                                                                                                                                                                                                     Score:
Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
DB:
```

ઠ 셤 ŝ 셤 ò 요 ठ a ò 셤 δ g g &

8 8

g

ઠે

셤 ઠે

õ

360

1443

340

320

1323

1383

300

& X C C C C C C C X & S

```
LystysThrtysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                          1384 AAGAAGACGAAGGAAGAAGAGGAGAAGTTCAGAGCGCATGCCGCTGAGTGGACTGGACTGGACTAAT
                                                                                                                                                                     ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                 GlnArgAlaThrSerValLysArgLygLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                                                                                                                                                 The invention relates to human and mouse TREK-1 potassium channel proteins and their corresponding DNA molecules. TREK-1 nucleic acid useful for transfecting cells to induce expression of the TREK-1 potassium channel protein. These cells are then used in assays to identify compounds which have anaesthetic properties, producing a sa
                                      281 GlybeuhlafyrpheAlahlaValLeuSerMetIleGlyAspfrpLeuhrgValIleSer
1204 GCTATCTATTTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTACGTGGCAGGT
                         261 GlySerAspIleGlwTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TREK-1 potassium channel protein for to identify compounds with anesthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                   potassium channel protein; TREK-1; anaesthetic; analgesia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Human TREK-1 potassium channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lesage F, Romey G,
                                                                                                                                                                                                                                                                                                                                                                                                                 potassium channel protein
                                                                                                                                                                                                                                                                                      GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
1. .1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 26-28; 39pp; English.
                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CNRS ) CNRS CENT NAT RECH SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encoding a
to be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-FEB-1999; 99US-0119727P.
11-FEB-2000; 2000US-00503089.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-FEB-2000; 2000WO-IB000226
                                                                                                                                                                                                                                                                                                                                             AAD17496 standard; DNA; 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= a
/product=
                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               щ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lazdunski M, Honore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-549146/50.
P-PSDB; AAE10341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel nucleic acid
transfecting cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200047738-A2
                                                                                                                                                                                                                                                                                                                                                                                                                    Human TREK-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                              10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    properties,
                                                                                                                                                                                                                                                                                                                                                                      AAD17496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          amnesia;
                                                                                                                                                                                                   1444
                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                    1504
                                                                                                                                                                              321
                                                                                                                                                                                                                                                                           361
                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Key
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                g
                                                                                                                                                                              8 8
                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                    Š
                                                    g
                                                                                ò
                                                                                                   В
                                                                                                                       ð
                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 griagicadacdaddarrodrarcarcaccarcarcarcarcarcarcarrodrarg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ileTyralaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrileglyPhedlyAsnileSerProArgThrGluGlyGlyLySilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluLeurleGinGlnrieValAlaAlarleAsnAlaGivrlerieProLeuGiyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to human and mouse TREK-1 potassium channel proteins and their corresponding DNA molecules. TREK-1 nucleic acid is useful for transfecting cells to induce expression of the TREK-1 potassium channel protein. These cells are then used in assays to identify compounds which have anaesthetic properties, producing a safe, reversible state of unconsciousness with concurrent amnesia and analgesia in a mammal upon inhalation. The present DNA sequence encodes murine TREK
                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                              663
                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                      SerpheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlyThrilePheGlyLyBGlylleAlaLy8ValGluAspThrPheIleLy8TrPAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValSerGinThrLysileArgilelleSerThrllellePhelleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuPhevalAlaLeuProAlavalllePheLysHislleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VallleGjnLysGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                     ValMetlysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                          MetalaalaproAspLeuLeuAspProLysSerAlaAlaGlnAenSerLysProArgLeu
                                                                                                                                                                                                                                                                                                          Sequence 3580 BP; 870 A; 917 C; 913 G; 880 T; 0 U; 0 Other;
                                                                                                                                                                                  3580
367
0
1
                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                Gaps:
                                                                                                                                                                                                                                                                     (1-3580)
                 7; Page 29-31; 39pp; English
                                                                                                                                                                                                                                                                       x AAD17497
                                                                                                                                                                                    7.07e-211
1864.00
99.73
99.73
98.99$
                                                                                                                            -1 potassium channel protein
                                                                                                                                                                                                                                                                        US-09-655-272-4 (1-370)
                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                                                                                                              gnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                 ۲
                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                              41.
                                                                                                                                                                                                                                                                                                                                                                                                                    604
                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 724
                                                                                                                                                                                                                                       Query Match:
DB:
                                                                                                                                                                                          ..
0
0
                     Claim
```

safe,

ò 셤 ò

g

셤 ð

g δ

유 à 요 à В ò

à

qq ò 셤 ò g ŏ g

õ

Ŋ

1020

360

340

```
This sequence is the h-TREK1 polynucleotide, encoding the h-TREK1 polypeptide AAY28496. h-TREK1 is a two pore potassium channel, and the gene maps to human chromosome 1q12, between the markers D18217 and W15105. The polynucleotide sequence of h-TREK1 can be used to diagnose a disease or susceptibility to a disease related to expression or activity of h-TREK-1 polypeptides. The methods of diagnosis may be used in the treatment of diseases including cancer, pulmonary, cardiovascular, and inflammatory diseases, pain, psychiatric disorders including depression and schizophrenia, neurodegenerative diseases including Alzheimer's, stroke, and head trauma and neurological disorders including migraine
                                                                                                                                                                                                                 GlnargalaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                                                    ValThrAlaGluPheLysGluThrArgArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                            LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                   901 AAAAAGACAAAAGAAAGAGAGGGGGGGGGTTCAGAGCACACGCTGCTGAGTGGACAGCCAAC
                                                                                                                                                                            GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGGAGATTTATGACAAGTTC
cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1246 BP; 335 A; 280 C; 302 G; 329 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h-TREK1; two pore potassium channel; inflammatory disease; chromosome 1q32; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New two pore potassium channel used for, e.g. treatment pulmonary, cardiovascular and inflammatory diseases.
                                                                                                                                                                                                                                                                                                                                     1081 GAGCTGACTCCTTGTAGGAGGACC 1104
                                                                                                                                                                                                                                                                                              GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
9. .1244
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product= "h-TREK1"
                                                                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 9; Page 24; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98EP-00300570.
                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ00039 standard; DNA; 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-EP007805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMIK ) SMITHKLINE BEECHAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chapman CG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h-TREK1 polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-469126/39.
P-PSDB; AAY28496.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Meadows HJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9937762-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JUL-1999
                                                            301
                                                                                                                                      321
                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ00039;
                                                                                                                                                                            961
                                                                                                                                                                                                                     341
                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
AA200039
10 AA20
10 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                           g
                                                                                                                                                                        셤
                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                      8
                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                ઠ
                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reversible state of unconsciousness with concurrent amnesia and analgesia in a mammal upon inhalation. The present DNA sequence encodes human TREK-1 potassium channel protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluLeurleGlnGlnr1eValAlaAlaIleAanAlaGlyrleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VallleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ileTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                              TCGTTTTCCACGAAACCCACAGTGCTTGCTTCCCGGGTGGAGAGTGACACGACCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVall1e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaileTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlySerAsp11eGluTyrLeuAspPheTyrLysProValValTrpPheTrp11eLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTGTGGTGTTCTGGATCCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyAlaAlaValPheLysAlaLeuGluGlnBroGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTAGTCAGACCAAGATTCGCATCATCTCAACAACATATTTATACATATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGACGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                             SerPheSerSerLysProThrValLeuAlaSerArqValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGT
                                                                               U; 0 Other
                                                                                                                                      1236
356
8
4
0
                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
                                                                               T; 0
                                                                               G; 328
                                                                                                                                                                                                                   Indels:
                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370) x AAD17496 (1-1236)
                                                                               599
                                                                               ວ
                                                                                                                                    6.92e-208
1833.00
98.91%
96.74%
97.34%
                                                                               BP; 330 A; 279
                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                               Sequence 1236
                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                                                                                                                                 Query Match:
DB:
                                                                                                                                          ..
0
  8X3333
                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

```
Hervieu GJ,
                                                                                                                                                          07-DEC-2000.
                                                                                   19-MAR-2001
                                     361
                                              1089
                                                                 AAC90412
                                                                           AAC90412;
                                                             RESULT
                                            g
                   8
                           셤
                                  8
                                                                                                                                                                                                                                                                                                       848
                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                    788
                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                              280
                                                                                                                                                                                                                                                                                                                                   LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn 200
                                                                                                                                                                                                                        728
                                                                                                                                                                             ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLySilePheCysIle 160
                                                                                                                                                                                       488
                                                                                                                                                                                                lleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                        GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                  368
                                                                                                                                                           SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                     428
                                                                                                                               308
                                                                       128
                                                                                          188
                                                                                                         100
                                                                                9
                                                                                                   80
                                                              40
                                                    68
                                                                                                                                                                                                                                                                                                                GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                        LeuphevalAlaLeuproAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                             AlaileTyrPheValValIleThrLeuThrIhrIleGlyPheGlyAspTyrValAlaGlY
                                                                                                                                              ValMetlysTrplysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                     GlyalaalavalphetysAlaLeuGluGlnGlnGlnIleSerGlnArgThrThrile
                                            MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
 1246
356
8
4
0
  Length:
Matches:
Conservative:
Mismatches:
Indels:
                          Gaps:
                                   US-09-655-272-4 (1-370) x AAZ00039 (1-1246)
   7.01e-208
1833.00
98.91%
96.74%
97.34%
            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
Alignment Scores:
                                                                                                                                                                                                                               549
                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                               606
                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                     699
                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                       729
                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                          789
                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                            849
                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                  609
                                                                                                                                                                                                                                                           221
                                                                                                               189
                                                                                                                                                     309
                                                                                                                                                               121
                                                                                                                                                                       369
                                                                                                                                                                                 141
                                                                                                                                                                                                   161
                                                                                                                                           101
                                                                                   41
                                                                                                      61
                                                                          69
                                                                                             129
     No.:
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                           පු
                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                        셤
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                      ò
                                                                                                                                g
                                                                                                                                           ò
                                                                                                                                                    엄
                                                                                                                                                            ò
                                                                                                                                                                      셤
                                                                                                                                                                                 Š
                                                                                 8 B 6
                                                                                                             g
                                                                                                                         ò
                                                      g
                                                                       8
                                              ò
                                                              ð
```

```
The present sequence is the coding sequence for human TREKI (h-TREKI). h-TREKI is a member of the 2P domain potassium channel family of proteins which play a part in the control of resting membrane potential.

Modulation of these channels will therefore affect neuronal excitability, thereby leading to a modulation of neurotransmitter release and activity of neuronal networks. Such modulation therefore may be useful for the treatment of certain neurological conditions such as epilepsy, sleeptraled disorders, cognitive dysfunction, attention deficit disorder, addiction, anxiety/phobia, Parkinson's and Huntington's chorea, cerebral palsy, incontinence, erectile dysfunction or alopecia
                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of human TREK1 polypeptide, polymucleotides encoding them and modulators of h-TREK1 polypeptides for treating epilepsy, sleep-related disorders, addiction and dyskinesias including Parkinson's and Huntington's chorea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; TREK; 2P domain potassium channel; resting membrane potential; neuronal excitability; neurotransmitter release modulation; epilepsy; neurological disorder; sleep-related disorder; cognitive dysfunction; attention deficit disorder; addiction; anxiety; phobia; parkinson's chorea; Huntington's chorea; cerebral palsy; incontinence; erectile dysfunction; alopecia; ss.
BP; 335 A; 280 C; 302 G; 329 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1246
356
8
4
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                              1112
                                                                                                                                                                                             GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Randall AD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; Page 29; 35pp; English.
                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.01e-208
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                                                           standard; cDNA; 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99GB-00012733.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2000; 2000WO-GB002107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human TREK coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Meadows HJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-080422/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; AAB50044.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200072863-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
```

```
This sequence represents human potassium channel K+Hnov59 cDNA. K+Hnov proteins have a high degree of homology to known potassium channels and may be alpha subunits, which form the functional channel, or accessory subunits that act to modulate the functional channel, or accessory subunits that act to modulate the channel activity. K+Hnov59 is a 4 transmembrane domain, 2 pore domain potassium channel. The gene is located on chromosome 19, determined via PCR chromosomal localisation using primers AAZ11940. K+Hnov cDNAs were isolated by extension of expressed sequence 1998 (EGTS) which were related but not identical to known human potassium channels. Potential polymorphisms detected as sequence variants between multiple independent clones. Potassium channels have critical related in channel are known to cause four human diseases: episodic ataxia with myokymia; cardiac arrhythmia channel potassium channels are syndrome, is epilepsy; and Bartter's syndrome. As potassium channels are critical components of virtually all cells, it is likely that abnormal potassium channels are also implicated in certain renal, cardiac acceptance contral nervous system (CNS) disorders. Nucleotides
                        encoding K+Hnov proteins may be used for identifying homologous or related proteins and the DNA sequences encoding them. They may be used to produce compositions that modulate the expression and function of the K+Hnov protein and in studying the biochemical pathways associated with it. They may also be used for the recombinant production of K+Hnov protein in fermentation cultures. Additionally, such nucleotides may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acids encoding mammalian K+Hnov potassium channel proteins, useful for the diagnosis and treatment of episodic ataxia with myokymia, cardiac arrhythmia, epilepsy and Bartter's syndrome.
Potassium channel; ataxia; arrhythmia; epilepsy; Bartter's syndrome; cardiovascular disorder; CNS disorder; renal disorder; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product= "Human K+Hnov59 potassium channel"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rutter M,
                                                                                                                 1089 GAGCTGACTCCTTGTAGGAGGACC 1112
                                                                                                                                                                                                                                                                                                                                                         Human potassium channel K+Hnov59 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 102-104; 112pp; English.
                                                                       361 GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
50. .1285
                                                                                                                                                                                                               AAZ11915 standard; cDNA; 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0076687P.
98US-0095836P.
99US-0116448P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Д,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US003826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Η'n
                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AXYS-) AXYS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Miller AP, Curran ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-527591/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; AAY34133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9943696-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-FEB-1998;
                                                                                                                                                                                                                                                                                                               30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-SEP-1999
                                                                                                                                                                                                                                                                 AAZ11915;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                   PARTIE COLOR COLOR
                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                                                                                                   188
                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyUyysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                     rcertriccaccaaaacccacagrecrigcriccceeereeagagreacaccaaraar 128
                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                            68
                                                                                                                                                                                           40
                                                                                                  20
                                                                                                                      GTTATGAAATGGGAAGACGCTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                     GlyAlaAlaValPheLyBAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                             GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    429 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Archardectracedesarreceererrestriretereseeresagings
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGAGAGATGGCTCCGAGTGATATCT
                                                                                                                                                                                           SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       369 TCCAATCAAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTCTTTGTTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATCCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
    0
                                                 US-09-655-272-4 (1-370) x AAC90412 (1-1246)
                                                                                                                                                                                                                      ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                549
                                                                                                                                                                                           21
                                                                                                                                                                                                                                          69
                                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                      129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            606
                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                    189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                  셤
                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
```

```
890 GGGCTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                  22-JAN-2002; 2002US-0350724P.
                                                                                                                                                                                                                                                                                                                       22-JAN-2003; 2003WO-US001911
                                                                                                                            ADP03564 standard; DNA; 2391
                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-618283/58.
                                                                                                                                                                                                                                                                                                                                                                              P-PSDB; ADP03575
                                                                                                                                                                                                                                                                                               WO2003062393-A2
                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                           31-JUL-2003
                                                                                                                                                    29-JUL-2004
                                                                                                                                        ADP03564;
                                                                            1070
                                                                                         361
                                                                                                    1130
                                                     1010
                                        321
                                                                341
                                                                                                                                                                                                                                                                                                                                                                                                            cancer.
                                                                                                                       RESULT
                                                                                                  g
                         g
                                                  요
                                                              8
                                                                                         Š
               ઠે
                                        Š
                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                     889
                                                                                                                                                                                                                                                                                                                                                                                                              829
                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyleualaTyrPhealaalaValLeuSerMetIleGlyaspTrpLeuargVall1eSer 300
                                                                                                                                                                                                                                                                                                                                                                                      769
                                                                                                                                                                                                                                                                                                                         LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn 200
                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                             709
                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                        ThrThrIleGlyPheGlyAanIleSerProArgThrGluGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                ValileGinLysGinThrPheileAlaGinHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                             349
                                                                                                                                                                                                                        GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                        289
                                                                                                229
                                                                                                                                                9
                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                 ValSerGlnThrLys1leArglle1leSerThr1le1lePhe1leLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                         LeuPheValAlaLeuProAlaValllePheLySHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                         GlySerAsp1leGluffyrLeuAspPheTyrLysProValValTrpPheTrp1leLeuVal
                                                                                                                                                                                                                                                                                                                                  AlaileTyrPheValValileThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                         of diseases associated
                                                                                                                                                                                                                                                SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValile
                                                                                                                                                                                                                                                                                ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                       GlyAlaAlaValPheLysAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrThrIle
                         U; 0 Other;
                                           3300
356
8
8
0
0
                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
      used in gene therapy protocols for the treatment with abnormal potassium channels
                         0
                         Ξ,
                          G; 994
                                                                          Gaps:
                                                                                      (1-3300)
                         680
                          Sequence 3300 BP; 997 A; 629 C;
                                                                                       US-09-655-272-4 (1-370) x AAZ11915
                                            3.09e-207
1833.00
98.91%
96.74%
97.34%
                                                         Percent Similarity:
Best Local Similarity:
                                       Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                         710
                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                770
                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                         830
                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                         590
                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                     81
                                                                                                                                                                                                                290
                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                         350
                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                    41
                                                                                                                                                                            61
                                                                                                                20
                                                                      Query Match:
DB:
                                                     Score:
                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                             음 상 음
                                                                                                                                                                                      d
                                                                                                                                                                                                   \rightarrow \frac{\rightarrow}{2}
                                                                                                                                                                                                                          8 8 8
                                                                                                                         B &
                                                                                                                                                   ò
                                                                                                                                                            a s
                                                                                                             g
                                                                                                    ò
```

```
1009
                                                                                                         340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPCR; G-protein coupled receptor; neuroprotective; nootropic; tranquiliser; antimigraine; neuroleptic; antimanic; antidepressant; anticonvulsant; antiparkinsonian; cytostatic; cardiant; hypotensive; antianghal; analgesic; anorectic; anti-HIV; antiasthmatic; osteopathic; uropathic; antiulcer; antiallergic; call cycle regulation; neurological; severe mental retardation; dyskinesia; brain; spinal cord; affective; neoplastic; cardiovascular; immunological; immune; endocrinal; growth; eating; HIV infection; cancer; metabolic; pituitary; chromosome identification; gene therapy; human; ds; gene; twin pore channel; potassium channel subfamily K member 2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pore channel" protein variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel isolated GPCR (G-protein coupled receptor) nucleic acid molecule. The polynucleotide and polypeptide of the invention demonstrate neuroprotective, nootropic, tranquiliser, antimigraine, neuroleptic, antimanic, antidepressant, anticonvulsant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid molecule encoding a human G-protein coupled receptor useful for diagnosing, preventing or treating diseases involving the receptor, e.g. Parkinson's disease, dementia, asthma, hypertension or
ValThralaGluPheLysGluThrargArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human GPCR twin pore channel" protein variant "Gene 9" DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Feder JN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               twin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPCR
                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
553. .1821
/*tag= a
/product= "Human GPCR
"Gene 9" protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1, SEQ ID NO 9; 224pp; English.
                                                                                                                                                                                                                                                                                                                                GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ramanathan CS, Gopal S, Mintier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BRIM ) BRISTOL-MYERS SQUIBB CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВÞ
```

Thu Feb

```
Example 15; Page 45-46; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                   AAS12169 standard; cDNA; 2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-FEB-2000; 2000US-00503849.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US004680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178. .1458
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-536570/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BADI ) BASF CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; AAU07618.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200161006-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pausch MH;
      221
                                                                                                                                                                                         301
                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                         AAS12169;
                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
                                                  8. 6
                                                                                             Š
                                                                                                                  용
                                                                                                                                                           셤
                                                                                                                                                                                       ò
                                                                                                                                                                                                        g
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                   ò
antiparkinsonian, cytostatic, cardiant, hypotensive, antianginal, analgesic, anorectic, anti-HIV, antiasthmatic, osteopathic, uropathic, antiallergic properties. The nucleic acid molecule and polypeptide of the invention may be useful in diagnosing, preventing, treating or ameliorating a medical condition, such as a disorder related to abstrant coll cycle regulation, neurological disorders, severe mental retardation and dyskinesias, brain disorders, spinal cord disorders, affective disorders, neoplastic disorders, cardiovascular disorders, immunological disorders, enting disorders, HIV infection, cancers, metabolic disorders and pituitary disorders. Furthermore, the polymucleotide may be used in chromosome identification, in identifying organisms from minute biological samples, in gene therapy or as a molecular weight marker. The current sequence is that of a human GPCR (G-protein coupled receptor) DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Archardccrracteseaarrccccrcrrresrrrcrcrrrescresearresagarcas 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                   ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                TTGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACCGAGGCTC 645
                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                       SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                  Sequence 2391 BP; 662 A; 503 C; 537 G; 689 T; 0 U; 0 Other;
                                                                                                                                                                           which was isolated by the method of the invention.
                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                   US-09-655-272-4 (1-370) x ADP03564 (1-2391)
                                                                                                                                                                                                                                   9.81e-207
1827.00
98.91%
96.20%
97.03%
                                                                                                                                                                                                                                            Score:
Percent Similarity:
                                                                                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1186
                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                                          904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                Query Match
    88888888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         &
```

```
1485
                                                                                                                                                                1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transmembrane potassium ion channel protein; inward potassium flux; ss
pest control; membrane potential; pesticide; antihelminthic; nematode;
                                                                                                                                                                                                                                                  321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1546 GTCACAGCCGAATTCAAAGAAACCAGGAGGGGACTGAGTGGGGGAGATTTATGACAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeupheValAlaLeuProAlaValllePhelySHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                 281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                    1426 GGGCTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                          LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                      GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polypeptide, a mutant potassium ion channel protein for improving inward potassium flux under acidic conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product= "Human TPKC1 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1666 caccicacitcriciagaccacca 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human potassium ion channel TPKC1 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 GluLeuThrProCysMetArgThr 368
```

```
RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                            Key
                                                                                                                                                                                                                                                            AAS12181
                                                                                                                                                        g
                                                                                                                                                                                          g
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                             셤
                                                                                                                      원
                                                                                                                                                                             à
            g &
                                                원
                                                                8
                                                                                 ద
                                                                                                       ò
                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            702
The invention relates to a mutant potassium ion channel protein, having four membrane spanning domains and two pore forming domains, comprising a mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability to grow in the presence of potassium. Mutant proteins and their corresponding polymucleotide sequences can therefore be used to improve inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antegonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence
                                                                                                                                                                                                                                                                                                                                                                  GluLeuileGlnGlnileValAlaAlaileAsnAlaGlyileileDroLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                       SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePhePheAlaGlyThrVall1e 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                         642
                                                                                                                                                                                                                                                                                             342
                                                                                                                                                                                                                                          282
                                                                                                                                                                                                                                                                                                                                GlyalaalavalphelygalaleuGluGlnGlnGluIleSerGlnArgThrIle 80
                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IleTyrzlaLeuLeuGlyIleProLeuPheGlyPheLeuLeullaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                 ThrihrileGlyPheGlyAsnIleSerProArgThrGluGlyGlyLySIlePheCySIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerGlnThrLysIleArglleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                           MetalaalaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                  Sequence 2130 BP; 564 A; 480 C; 488 G; 593 T; 0 U; 5 Other;
                                                                                                                                               2130
352
10
6
0
                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                           US-09-655-272-4 (1-370) x AAS12169 (1-2130)
                                                                                                                                                3.44e-204
1805.00
98.37%
95.65%
95.86%
                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                      protein, TPKC1
                                                                                                                                        Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                                                                                                                                                             523
                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                   Dp
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                    à
        8×33333333333333
```

```
ø
                                                                                                                                                                                                1182
                                                                                                                                                                     1062
                                                                                                                    320
                                                                                                                                                          340
                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a mutant potassium ion channel protein, having four membrane spanning domains and two pore forming domains, comprising
                                      280
                                                                                                                                                                                                                                                                                                                                                                          Transmembrane potassium ion channel protein; inward potassium flux; ss;
pest control; membrane potential; pesticide; antihelminthic; nematode;
insect; TPKC1; human; mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          improving
                                                                                                                   LysbysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                              943 GCCATTIATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGT
                                                 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                        321 ValihiralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                      GlySerAspileGluTyrLeuAspPheTyrLysBroValValTrpPheTrpIleLeuVal
New polypeptide, a mutant potassium ion channel protein for inward potassium flux under acidic conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Human TPKC1 mutant protein
                                                                                                                                                                                                                                                                                                                                                           Human potassium ion channel protein TPKC1 cDNA mutant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 12; Page 121-122; 131pp; English.
                                                                                                                                                                                                                                                         GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
178. .1458
                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/product= "Huma
replace(943,G)
/*tag= b
                                                                                                                                                                                                                                                                                                     AAS12181 standard; cDNA; 2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-FEB-2001; 2001WO-US004680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-FEB-2000; 2000US-00503849
                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-536570/59.
P-PSDB; AAU07622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BADI ) BASF CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200161006-A2
                                                                                                                                                                                                                                                                                                                                             21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ĕ
                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                 1303
                                                                                                                                                                                                                                                                                                                          AAS12181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mutation
                                                                                                      1063
                                                                                                                                              1123
                                                                                   281
                                                                                                                          301
                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pausch
```

```
셤
                                                                                                        g
                                                                                                                                                        ద
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                     셤
                                                                          8
                                                                                                                                    8
                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                              8
                              õ
mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability to grow in the presence of potassium. Mutant proteins and their corresponding polynucleotide sequences can therefore be used to improve inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antagonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence represents a human cDNA encoding a transmembrane potassium ion channel mutant TPKC1 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                        342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 260
                                                                                                                                                                                                                                                                                                                                    282
                                                                                                                                                                                                                                                                                                                                                                                                                                            402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                         GTGGCGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACCGAGGCTC
                                                                                                                                                                                                                                                                                                                                                                             TCATTTTCCACGAAACCCACAGTGCTTGCTTCCCGGGTGGAGGTGACACGACCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATTTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGCTGCCCTGGAC
                                                                                                                                                                                                                                                                                                          MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                    ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyAlaAlaValPheLysAlaLeuGluGluGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValSerGlnThrLygIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                  U; 5 Other;
                                                                                                                                                                                       2130
351
10
7
0
                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                    0
                                                                                                                                                  Ë
                                                                                                                                                  C; 487 G; 593
                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                  (1-2130)
                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370) x AAS12181
                                                                                                                                                                                       1.03e-203
1801.00
98.10%
95.38%
                                                                                                                                                  Sequence 2130 BP; 565 A; 480
                                                                                                                                                                                                                                           95.65%
                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                        283
                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            883
                                                                                                                                                                                                                                          Query Match:
DB:
     888888888888888
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                              કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

```
1242
                                                                                                                       1122
                                                                                                                                                                                   1182
                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                      320
                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                               360
                              280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a mutant potassium ion channel protein, having dour membrane spanning domains and two pore forming domains, comprising a mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane potassium ion channel protein; inward potassium flux; ss pest control; membrane potential; pesticide; antihelminthic; nematode; insect; TPKC1; human; mutant.
                                                                                                                                                                           ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                            GlnArgAlaThrSerValLygArgLygLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
943 ACCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGT
                                              1003 GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTCTGGTGGTTCTGGATCCTTGTA
                                                                                          281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                          1063 GGGCTTGCTTACTTTGCTGCTGCTGTGCATGATTGGGAGATTGGTCCGAGTATCT
                                                                                                                                                      LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                1183 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGAGATTTATGACAAGTTC
                              261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein for improving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human potassium ion channel protein TPKC1 cDNA mutant #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "Human TPKC1 mutant protein
replace(991,T)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polypeptide, a mutant potassium ion channel
inward potassium flux under acidic conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Page 123-124; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                             1303 GAGCTGACTCCTTGTAGGAGGACC 1326
                                                                                                                                                                                                                                                                                                                                             GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS12182 standard; cDNA; 2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2001; 2001WO-US004680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-FEB-2000; 2000US-00503849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178. .1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-536570/59.
P-PSDB; AAU07623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BADI ) BASF CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200161006-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pausch MH;
                                                                                                                                                       301
                                                                                                                                                                                     1123
                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                 341
                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mutation
                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
AAS12182
```

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InthrileGlyPheGlyAsnileSerProArgThrGluGlyGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                702
to grow in the presence of potassium. Mutant proteins and their corresponding polynucleotide sequences can therefore be used to improve inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antagonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence represents a human cDNA encoding a transmembrane potassium ion channel mutant TPKCI protein
                                                                                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                ValileginiysginihrPhelleAlaginHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                        342
                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                               282
                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerGlnThrLys11eArg11e11eSerThr11e11ePhe11eLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaileTyrpheValValileThrLeuThrTleGlyPheGlyAspTyrValAlaGlY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11eTyrhlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTAGTCAGACCAAGATTCGCATCATCTCAAATCATATTTATACTTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                             GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleFroLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                    SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAla11eAsn
                                                                                                                                                                                                                                                                                 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                            Met Ala Ala Pro Asp Leu Leu Asp Pro Lys Ser Ala Ala Glu Asu Ser Lys Pro Arg Leu
                                                                                               Sequence 2130 BP; 564 A; 481 C; 488 G; 592 T; 0 U; 5 Other;
                                                                                                                                2130
351
11
6
0
                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                          (1-2130)
                                                                                                                                                                                                           x AAS12182
                                                                                                                                  1.36e-203
1800.00
98.37%
95.38%
95.59%
                                                                                                                                                                                                            US-09-655-272-4 (1-370)
                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                               283
                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                  ч
                                                                                                                                                                                                                                                                          21
                                                                                                                                                                             Query Match:
DB:
                                                                                                                                      Pred. No.:
                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                  8
          8888888888888
```

```
1182
                                                                                                                                         The invention relates to a mutant potassium ion channel protein, having four membrane spanning domains and two pore forming domains, comprising e mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability to grow in the presence of potassium. Mutant proteins and their corresponding polymucleotide sequences can therefore be used to improve
                                                                                                                                                                  360
                                                                                 320
                                                                                                                         340
                                                                                                                                                                                                                                                                                                                                                  Transmembrane potassium ion channel protein; inward potassium flux; ss
pest control; membrane potential; pesticide; antihelminthic; nematode;
insect; TPKCL; human; mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a mutant potassium ion channel protein for improving flux under acidic conditions.
                                                                                                                                                                 GlnArgAlaThrSerValLygArgLygLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
         GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                     LystysthriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                    ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
GlySerAspileGluTyrLeuAspPheTyrLysBroValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= a /product= "Human TPKC1 mutant protein #4" replace(985,G) /*tag= b
                                                                                                                                                                                                                                                                                                                                    Human potassium ion channel protein TPKC1 cDNA mutant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 12; Page 126-127; 131pp; English.
                                                                                                                                                                                                                                  1326
                                                                                                                                                                                                             GluieuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
178. .1458
/*tag= a
                                                                                                                                                                                                                          1303 GAGCTGACTCCTTGTAGGAGGACC
                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                           standard; cDNA; 2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-FEB-2001; 2001WO-US004680.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-FEB-2000; 2000US-00503849
                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-536570/59.
P-PSDB; AAU07625.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New polypeptide,
inward potassium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200161006-A2
                                                                                                                                                                                                                                                                                                                                                                Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BADI ) BASF
                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                      21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pausch MH;
                                                                                                                                                                                                                                                                                                 AAS12184;
                                                                                                                                                    1183
                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                              AAS12184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutation
                          1003
                                                                   1063
                                                                                                            1123
                                                                                                                                321
                                               281
                                                                                       301
                                                                                                                                                                         341
       261
                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                         RESULT 12
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                          중 염
                                                                                                       쉱
                                                                                                                                                 원
                                                                                                                                                                        à
                                          8
                                                                g
                                                                                  8
                                                                                                                                 ò
```

340

1122

320

Thu

```
1243 cagcigiocacciccarcaagcigaagcicicicgicagaacigigaaaaccacaatcag 1302
                                                                                                                                                                                          1183 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGGGAGATTTATGACAAGTTC 1242
                                                                                                                                                                                                                     GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a mutant potassium ion channel protein, having four membrane spanning domains and two pore forming domains, comprising a mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability to grow in the presence of potassium. Mutant proteins and their corresponding polynucleotide sequences can therefore be used to improve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Transmembrane potassium ion channel protein; inward potassium flux; ss
pest control; membrane potential; pesticide; antihelminthic; nematode;
insect; TPKC1; human; mutant.
                                                                                              LysiysThriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                        AAAAAGACAAAAAGAAGGGGGGGAGAGTTCAGAGCACACGCTGCTGAGTGGACAGCCAAC
                   1003 GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATCCTTGTA
                                                               GGGCTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGGAGATTGGTCCGAGTGATATCT
                                                                                                                                                               ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polypeptide, a mutant potassium ion channel protein for improving inward potassium flux under acidic conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Human TPKC1 mutant protein #3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human potassium ion channel protein TPKC1 cDNA mutant #3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; Page 124-125; 131pp; English
                                                                                                                                                                                                                                                                                                          GAGCTGACTCCTTGTAGGAGGACC 1326
                                                                                                                                                                                                                                                                               GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
178. .1458
                                                                                                                                                                                                                                                                                                                                                                     В'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= b
replace(998,C)
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                replace (991, T)
                                                                                                                                                                                                                                                                                                                                                                    AAS12183 standard; cDNA; 2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2001; 2001WO-US004680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-FEB-2000; 2000US-00503849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= a
/product= '
                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-536570/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAU07624.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200161006-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BADI ) BASF
                                                                                                                                                                                                                                                                                                                                                                                                                             21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pausch MH;
                                                                            1063
                                                                                                       301
                                                                                                                                    1123
                                                                                                                                                               321
                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                               361
                                                281
                                                                                                                                                                                                                                                                                                            1303
                                                                                                                                                                                                                                                                                                                                                                                                AAS12183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
                                                                                                                                                                                                                                                                                                                                                      AAS12183
                                                                                                                                                                                                                                                                                                                                         RESULT
                                        5 6
                                                                                                                            g
                                                                                                                                                             8
                                                                                                                                                                                    셤
                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                     ે
                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1002
inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antagonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence represents a human cDNA encoding a transmembrane potassium ion channel mutant TPKC1 protein
                                                                                                                                                                                                                                                                                                                        282
                                                                                                                                                                                                                                                                                                                                                                     402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluLeulleGlnGlnIleValAlaAlaileAsnAlaGlyIleIleFroLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerAsnGlnValSerHisTxpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValIleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                             GTGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCCAAACCGAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                              GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGCCACCGIGITCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTATATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTCGTGACTACGTTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                     SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                              ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyAlaAlaValPheLysAlaLeuGluGlnBroGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rccaarcaaarcagrcacrgggarrrgggaagrrccrrcrrcrrgcrgggacrgrrarr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Archardcorractedaarroccorringerrincrorredeadradadardd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValSerGlnThrLysIleArgileIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaileTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                             MetalaalaProAspLeuLeuAspProLysSerAlaalaGlnAsnSerLysProArgLeu
                                                                                                                     0 U; 5 Other;
                                                                                                                                                               2130
351
10
7
0
                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                     Sequence 2130 BP; 564 A; 481 C; 487 G; 593 T;
                                                                                                                                                                                                                                                                (1-2130)
                                                                                                                                                                                                                                                                US-09-655-272-4 (1-370) x AAS12184
                                                                                                                                                            3.09e-203
1797.00
98.10%
95.38%
95.43%
                                                                                                                                                                                                          Similarity:
                                                                                                                                                                                           Percent Similarity:
                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                 283
                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                ..
..
                                                                                                                                                                                                          Best Local
                   888888888
                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
```

```
ACC46425
                                                                                                                                                                          g
                                                                        ò
                                                                                      a
                                                                                                     ò
                                                                                                               셤
                                                                                                                                જે
                                                                                                                                         g
                               엄
                                             ò
                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                           882
inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antagonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence represents a human cDNA encoding a transmembrane potassium ion channel mutant TPKC1 protein
                                                                                                                                                                                                                                                                                                              SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                      ThrThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLySilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                    762
                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                822
                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                      522
                                                                                                                                                                                                                                                                                  GlubeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProbeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                 582
                                                                                                                                                                                                              402
                                                                                                                                                                                                                                          462
                                                                                                                                                                                  342
                                                                                                                                                      282
                                                                                                                                                                                                                            80
                                                                                                                                                                    40
                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlySerAsplleGluIyrLeuAspPheTyrLysProValValTrpPheTrplleLeuVal
                                                                                                                                                                                                                                                                                                                                                                      Arcrardectracteddaarreceererradarrecerregaerreda
                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyThrilePheGlyLysGlyileAlaiysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                           ctaggcaccatatttggaaaaaggaattgccaaactggaagatacgttattagtggaat
                                                                                                                                                                                                                                                                                                                                                                                                                             ValSerGlnThrLysIleArglleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaileTyrPheValValileThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                        SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaileAsn
                                                                                                                                                                                                ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                        GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                     ValileglnLysglnThrPheileAlaglnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                              U; 5 Other;
                                                                          2130
350
11
7
0
                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                       T; 0
                                                      G; 593
                                                                                                              Gaps:
                                                                                                                            (1-2130)
                                                        488
                                                        ΰ
                                                                                                                             x AAS12183
                                                                        4.07e-203
1796.00
98.10%
95.11%
                                                       Seguence 2130 BP; 564 A; 480
                                                                                                                             US-09-655-272-4 (1-370)
                                                                                           Percent Similarity:
Best Local Similarity:
                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                              823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                            н
                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                  763
                                                                                                                                                                                                                                             403
                                                                                                                                                         223
                                                                                                                                                                                                   41
                                                                                                                                                                                                                               61
                                                                                                                                                                        21
                                                                                                        Query Match:
DB:
                                                                              ..
No.:
                                                                                                  Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                            ò
                                                                                                                                                        g
                                                                                                                                                                        ò
                                                                                                                                                                                   g
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                           õ
        8888888888
```

```
Novel human diagnostic and therapeutic polypeptide useful for identifying test compound which specifically binds to a polypeptide encoded by human diagnostic and therapeutic polynucleotide, and to induce antibodies.
                                                                                                                                                                                                                                        1242
                                                                              1122
                                                                                                                                                                                                                                                                                                         340
                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in;
                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; dithp; diagnostic and therapeutic polynucleotide; diagnosis; cancer; cell proliferative disorder; autoimmune disorder; inflammanchy disorder; infection; hormonal disorder; metabolic disorder; neurological disorder; gastrointestinal disorder; transport disorder; connective tissue disorder; drug screening; proteome analysis; dene therapy; antisense therapy; genotyping; transgenic animal; knock in; disease model; toxicological testing; transcript imaging; membrane transport protein; gene; 88.
                                                                                                                    LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                             ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                       GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EH;
GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGGGTTCTGGATCCTTGTA
                                                               GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  etzen D, Chinn J;
Yap PE, Amshey SR;
Kleefeld Y, Gerstin EF
Panzer SR, Harris B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gietzen D,
O, Yap PE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          membrane transport protein-encoding cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jones AL, Tran AB, Dahl CR, Gietzen D, Hillman JL, Yu JY, Tuason O, Yap PE SC, Dam TC, Liu TF, Nguyen DA, Kleef H, David MH, Lewis SA, Chen AJ, Panze Marwaha R, Lo A, Lan RY, Urashka ME;
                                                                                                                                                                                                                                                                                                                                                                                                  GAGCTGACTCCTTGTAGGAGGACC 1326
                                                                                                                                                                                                                                                                                                                                                                  GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-0279619P.
2001US-0280067P.
2001US-0280068P.
2001US-029180P.
2001US-0291829P.
2001US-0291849P.
2001US-0291849P.
2001US-0299428P.
2001US-0299776P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACC46425 standard; cDNA; 3393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAR-2002; 2002WO-US010056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Daffo A,
Dufour GE, Hillman C,
Daughtery SC, Dam TC,
Peralta CH, David MH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-129518/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; ABR41487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200297031-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-MAR-2001; 29-MAR-2001; 29-MAR-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-MAY-2001;
19-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-MAY-2001;
17-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human dithp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-DEC-2002
                                                                                                                                                                                                                                                                                                                                  1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACC46425;
                                                                                      1063
                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                 1303
                                                                                                                              301
                                                281
```

```
The invention relates to novel human diagnostic and therapeutic polynucleotides designated dithp (ACC46080-ACC46749) and to their encoded proteins (DITHP, ARRA18136-ARRA1812). The invention also relates to polynucleotide sequences at least 90% identical to the dithp cDNA sequences of the invention; recombinant vectors, host cells and transgenic organisms comprising dithp nucleic acid sequence; the recombinant production of DITHP proteins; antibodies specific for DITHP crecembinant production of DITHP proteins; antibodies specific for DITHP compounds which specifically bind a DITHP protein; and methods of detecting dithp nucleic acid sequences; methods of sesessing the toxicity of test compounds using a dithp hybridisation of probe. Dithp nucleic acid sequences and DITHP proteins may be used in the diagnosis of a wide variety of conditions including cancer and other cell conditionally useful disorders; neurological disorders; proteins can additionally be used in analysis of the proteome of a tissue con additionally useful in somatic or germline gene therapy of the disorders additionally useful in somatic or germline gene therapy of the disorders and primers, in genotyping and identification of individuals, in the generation of transgenic animal models of human disease or knock in humanised animals, in toxicological testing, and in transcript imaging. The present sequence represents a dithp cDNA encoding a DITHP protein activity. Note: The sequence data content of the printed specification, but was content of the parent did not form part of the printed specification, but was content of the protein activity. However, the sequence of the present sequence for part of the printed specification, the parent did not form part of the printed specification, the printed in electronic form part of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ftp.wipo.int/pub/published_pct_sequences
                                NO 346; 591pp; English,
                                n
                             Claim
```

Sequence 3393 BP; 978 A; 667 C; 716 G; 1032 T; 0 U; 0 Other;

	00	247	40	307	9	367	80	426	100	483	120	543	140	603
			ng -		ω-									
	Y		116	ATT?	[]e]	- G	Thr.	-55 -55	Tem.	-8 -5	yAsnSer	- G	Thrvalile	TT.
	7	- CGC	Ala	ACC	Leu	-g	F.	- G-	[] []	-85 -85		-83 -83	11	ACT CT
	877	AAA TA	Ser	ACG	TYT	TAT	Arg	- N	Tr-	-ACG	Leu	-FI	[G1]	-ပ္ပ -ပ္ပ
	Q.		rABE	IGA IGA	l.e.	- - - - - - -	131 131	- GA	Ser	- <u>1</u>	ePro	- <u>8</u>	eA18	-5 -5
33393 351 9 8 0	4	EAA.	uSe:	GAG	lva -	-Ğİ	eSe	-1- -1-	lAsı	CAT.	VIleIleProLeuGl	TAT	ePh	-E
	4 (I-3/0) A ALC#0#20 (I-3/3/2) Metalablabrokani.enilenikanDrof/veSeralablaglubenSerf.veDrokrdien	GTGGCGCACTGATTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACGGGGTC	SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn	TCATITICCACGAAACCCACAGAGTGCTTCCCGGGTGGAGAGTGACACGACCATTAAT	ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIl	GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC	laAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrTle	GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCTT-	VallleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp	GIGATCCAGAAGCA-ACATTCATATCCCA-CATTCCTGTGTCAT-TCGACGGAGCTGGAT			SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAlaGl;	TCCAATCAATCAGTCACTGGGAATTTGGGAAGTTCCTTCTTTGCTGGCACTGTTATT
ive: B:	[46]		rgVe	-66 -66 -66	euVe	- 55 - 55 - 55	1ng]	ATG-	lac,	- U	GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGl	-8 -8	erP	- 5 - 5
:: chet	4		erA	-0 -0 -0	her.	- <u>1</u> 2	rog	CTC	isAla	-YI	SnA	ATG	ers	GTT
Length: Matches: Conservative Mismatches: Gaps:	787		Alas		lleP	TAT	31nF	-8G-	31nE	-0-	rleA	TA	3178	- S
Lengt Matck Conse Misma Indel Gaps:	Drol		Leu/	-U	답.	ACG-	Glac	GAG-	Ala(ATCC	Ala	-8 -8	Leu	-11 -12
5	17)	GAT TATE	Val		Ser	-F	Lev	-11	11e	ATA:	Ala	-8 -8	Asp	GAT
96	0.21		Thr	-8 -8	rva]	- E	sAla	-55 -55	rPhe		eVa]	-61-01-01-01-01-01-01-01-01-01-01-01-01-01	TE	- E
.49e~196 743.50 7.83\$ 5.38\$ 2.59\$	ָהָי הָּ מילים		8Pr	-X	STh.	-85 -85	eLy	- S	rg-	- <u>2</u>	nille.	-A-	HH.	- <u>Ş</u>
1.49e-196 1743.50 97.83* 95.38* 92.59*	אָר אָר מאַר		r.Ly	GA-	PLY -	-g-	1 Ph	-6-	,8G1	-8 -8	.nG1	-8 -8	13e	-CAG
	, ים ה קם ה		erSe	GA:	YST	-¥-	lave	-55	10.	-g	1eG]	-5 -£	lnVa	AAAT
: ty: arity: (1_270)	י מ מ	g	heSe	TTT.	et Ly	-1G-	laA	-Š]eG	-0 -0 -10	euI	- <u>Ş</u>	Bug.	ATC.
ന പ്പ്	1 4	::: - 31766	erP	-Ğ	/alm	-FF	GlyA	GAG	/all	-F.	luľ.	AAC AAC	erA	-5 -5
Scores milari(Similarith)	, 5		21 8	248 I	41 7	308	61 0	368	81 7	427 G	101	484 G	121 5	544 T
tt Scores:); Similarity sal Similar ttch:	7	16	.,	7,	•	ñ	_	36	~	4	1(4.	7	7,
ment No int Loca Mat	0													
Alignment Scoree Pred. No.: Score: Percent Similar: Best Local Simil Query Match:	,			^	_	0	_	0	_	0		^	_	_
A P S P S P S P S P S P S P S P S P S P	ŝ	6 6	ò	g	ઠે	a	ઠે	д	ò	g	ઠે	ద	ò	g

1143 1083 240 260 280 300 320 340 180 723 200 783 220 843 903 963 GlnArgAlaThrSerValLy8ArgLy8LeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360 1084 AAAAAGACAAAAAAGAAGGGGGGGGGGTTCAGAGCACACGCTGCTGGTGGACAGCCAAC 604 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln Archargectracidedaarrececterriegringerregeriegagiregagareae LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGAGTGCCCTGGAC AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 1024 GGGCTTGCTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe CTAGGCACCATATTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGT GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal Human TRICH-22 coding sequence, SEQ ID 70. 1264 GAGCTGACTCCTTGTAGGAGGACC 1287 GlubeuThrProCysMetArgThr 368 ADJ27238 standard; DNA; 1702 20-MAY-2004 (first entry) 1144 341 361 ADJ27238; 664 241 904 964 281 321 141 161 181 724 201 784 221 844 261 301 RESULT 15 원 ઠે 셤 ð g ò 셤 ò g ઠ 셤 ઠે 요 Š 셤 8 g 8 a 8 8

Human; TRansporters and Ion CHannels protein; TRICH; Transporter; Ion Channel; transport disorder; neurological disorder; muscle disorder; neurological disorder; muscle disorder; immunological disorder; cell proliferative disorder; infection; Neuroprotective; Muscular; Respiratory; Antidiabetic; Antipaction; Nootropic; Anticonvulsant; Antithyroid; Ophthalmological; Antibacterial; AntiInflammatory; Cardiant; Antithyroid; Ophthalmological; Antiasthmatic; Endocrine; Hypotensive; Anti-HTV; Antianemic; Antiasthmatic; Immunosuppressive; Anti-HTV; Antianemic; Antipsoriatic; Antirheumatic; Immunosuppressive; Antiparastic; Protection; Virucide; Fungicide; Antiparastic; Protectoropic; Cytostatic; Gene Therapy; TRICH-22; gene; ds.

Homo

us-09-655-272-4.rng

```
The present invention relates to novel human TRansporters and Ion CC Channels proteins referred to collectively as TRICH (TRICH-1- TRICH-48, AD0271264). AD0271264). The AD0271264). The AD0271264 AD0271264). The CC TRICH proteins and coding sequences (AD0271264). The CTRICH proteins and coding sequences (AD0271264). The TRICH proteins and prevention of transport, neurological, muscle, amyotrophic treatment and prevention of transport, neurological, muscle, amyotrophic adoleresis, ataxia telangiectasia, e.g. akinesia, amyotrophic lateral sclerosis, ataxia telangiectasia, cystic fibrosis, Becker's muscular dystrophy, Bell's palsy, diabetes mellitus, diabetes insipidus, chapathenia gravis, peripheral neuropathy, Alzheimer's disease, compaction's disease, Grave's disease, cataracts, bacterial and viral tunington's disease, Grave's disease, Creuzfeldt-Jakob disease, Cardiomyopathy, myocarditis, myotonic dystrophy, lipid myopathy, angina, cardiomyopathy, myocarditis, myotonic dystrophy, lipid myopathy, angina, cardiomyopathy, actic acidosis, AlDS, anaemia, adult respiratory distress crimingtis, exthus Cubings syndrome, adult respiratory distress contribines, atherosclerosis, bronchitis, Crohn's disease, atopic contribination, erythroblastosis fetalis, osteoartritis, esteroprosis, pararacticis, pararactic, pararactic acidosis, rheumatoid arthritis, scleroderma, systemic conternial, fungal, parasitic, protezoal or helminthic infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human transporters and ion channels and nucleic acids encoding them, useful for diagnosing, treating or preventing cystic fibrosis, Becker's muscular dystrophy, Parkinson's disease, myasthenia gravis, prion disease or cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerPheSerSerLysBroThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValValteuTyrLeuIleIle 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regrirriccacgaaacccacagrecriecriccegggregagagreacacacriraar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MetalaalaaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                   Richardson TW, Hafalia AJA, Khare R, Tran UK, Emerling BM;
Lee SY, Chawla NK, Elliott VS, Swarnakar A, Chang H, Kable AE;
Becha SD, Mason PM, Jiang X, Jackson AA, Marquis JP, Das D;
Gietzen KJ, Ding L, Baughn MR, Lee EA, Thornton MB, Borowsky ML;
Harland L, Arvizu CS, Yao MG, Gandhi AR, Au-Young JK, Warren BA;
Lal PG, Lindquist EA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1702 BP; 470 A; 368 C; 390 G; 474 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-1702)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 5; SEQ ID NO 70; 357pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-655-272-4 (1-370) x ADJ27238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.12e-161
1447.00
81.52%
79.35%
                                                                                                                     02-AUG-2002; 2002US-0400953P.
12-AUG-2002; 2002US-040332IP.
19-AUG-2002; 2002US-0404693P.
29-AUG-2002; 2002US-0407052P.
                                                                               01-AUG-2003; 2003WO-US024164.
                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2004-180430/17.
P-PSDB; ADJ27190.
                                                                                                                                                                                                                                (INCY-) INCYTE CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                          12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
```

```
1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341 GlnArgAlaThrSerValLygArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             792
                                                                                                                                                                  140
                                                                                                                                                                                       559
                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                200
                                                                             100
                                                                                                                                            499
                                                     379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AlaileTyrPheValValileThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LystysthriysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAGACAAAAGAAGAGGTGGGAGAGTTCAGAGCACACGCTGCTGAGGGGAGGAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321 ValThralaGluPheLysGluThrArgArgArgleuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCTTGCTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
260 GTTAIGAAATGGAAGAGGTCTCCACGATATTCCTGGTGGTTGTCCTAICTGATGAATC
                                                                                                                                    SerasnglnvalSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
|||||||||||||
rccaarcaaarcaGrcaCrGGGATTTGGGAAGTTCCTTCTTTGCTGGCACTGTTATT
                                                                                                                                                                                                           ThrihelledlyPhedlyAsnileSerProArgThrGluGlyGlyGlyFlePheCysile
                                                                                                                                                                                                                                                      IleTyralaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                    LeuglyThrilePheglyiysGlyileAlaLysValGluAspThrPheileLysTrpAsn
                                                                                                                                                                                                                                                                                                                                          201 ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                   221 LeupheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlySerAspileGluTyrLeuAspPheTyrLysProvalValTrpPheTrpileLeuVal
                                              ValileGinLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                       GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAenSer
                                                                                                                                                                                                                                seo acaaccaraddarrrrddaaacarcrcaccacdcadaaaddcaaaararrcrdrarc
                                                                                                                                                                                                                                                                                                            GlyAlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 GlubeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                         680
                                                                                                                                                                                                                                                                                                                                                                                                                                                          732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          853
                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                      181
                                                            320
                                                                                                       380
                                                                                                                            101
                                                                                                                                                  140
                                                                                                                                                                       121
                                                                                                                                                                                             200
                                                                                                                                                                                                                 141
                                        61
                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                               g
                                                                                                   ď
                                                                                                                            Ś
                                                                                                                                                  셤
                                                                                                                                                                       ò
                                                                                                                                                                                         원
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                    8
                                  ð
                                                         g
                                                                                   ò
```

2, 2005, 22:33:24

completed: February ne : 582.562 secs

Search cor Job time

BLOSUM62

Scoring table:

Searched:

Title: Perfect score:

Sequence:

OM protein -

Run on:

```
Sequence 4, Appli
Sequence 4, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 7, Appli
Sequence 11, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 12, Appli
Sequence 11, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Appli
Sequence 15, Appl
Sequence 68, Appl
Sequence 56, Appl
Sequence 15338, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MetalaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              484 ATGGCGGCCCCTGACTTGCTGGATCCCAAGTCTGCTGCTGCTGAAACTCCAAACCGAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544 TCATICTCTTCAAAACCCACCGTGCTTGCTTCCCGGGTGGAGAGTGACTCGGCCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1994
368
0
0
0
                                                                                                                                                                                                                                                       US-09-336-643A-90
US-09-336-643A-90
US-09-362-842-11
US-09-362-842-11
US-09-362-842-3
US-09-362-842-3
US-09-561-763-12
US-09-431-367B-12
US-09-431-367B-10
US-09-431-367B-10
US-09-362-842-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                            US-09-144-914-1
US-09-561-763-9
US-09-431-367B-9
US-09-561-763-7
US-09-431-367B-7
                                     US-09-431-367B-6
US-09-561-763-4
US-09-431-367B-4
                                                                                                                      US-09-814-915A-45
US-08-749-816-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-655-272-4 (1-370) x US-09-236-080-5 (1-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-25-080-5
; Sequence 5, Application US/09236080
; Patent No. 6242217
; GENERAL INFORMATION:
; APPLICANT: Helen Meadows
; APPLICANT: Contrad Chapman
; TITLE OF INVENTION: No. 6242217el Compounds
; TITLE OF INVENTION: No. 6242217el Compounds
; TITLE OF SERRENCE: GP30031
; CURRENT PAPLICATION NUMBER: US/09/236,080
; CURRENT FILING DATE: 1999-01-25
; NUMBER OF SEQ ID NOS: 6
; SEQ ID NO 5
; SEQ ID NO 5
; LENGTH: 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.67e-237
1870.00
100.00%
100.00%
99.31%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
    Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-236-080-5
397.5
387.3
387.3
397.7
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
377.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                               211
203.5
203.5
174.5
174.5
162.5
141
141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:
-MODEL=frame+ p2n.model -DEV=xlh
-Q=/Cgn2_1/USPTO_spool/USO9655272/runat_02022005_141715_6768/app_query.fasta_1.1102
-Q=/Cgn2_1/USPTO_spool/USO9655272/runat_02022005_141715_6768/app_query.fasta_1.1102
-Q=/Cgn2_1/USPTO_spool/USO9655272/runat_DSUFFIX=ni -MINNATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=Dits -START=1 -END=-1 -MATRIX=Dlosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15
-USPR=USO9655272_@CGN 1 1 93 @runat_0202505_141715_6768 -NCFU=6 -ICPU=3
-NON MAAP -LARGEQUERY -NGG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DBV TIMEOUT=120 -WARN TINEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPOXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5, Appli
Sequence 1, Appli
Sequence 42, Appl
Sequence 432, Appl
Sequence 3, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
                                                                                                                                     February 2, 2005, 22:01:01; Search time 99.7266 Seconds (without alignments) 2637.130 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                            MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ued_Patents_NA:*
/cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                      GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                               nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-236-080-5
US-09-236-080-1
US-09-336-643A-82
US-09-432-470-1
US-09-432-470-3
US-09-432-470-3
US-09-431-36-080-3
US-09-561-763-3
US-09-561-763-1
US-09-5431-367B-1
US-09-431-367B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                            824507 segs, 355394441 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                        0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                      Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length DB
                                                                                                                                                                                                                        US-09-655-272-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11294
11246
11246
123300
12130
12183
13996
1321
1497
1497
3452
3452
```

1870 1833 1833 1247.5 797 797 797 7416.5 416.5 416.5

459654 1110

Score

Result Š

```
g
                                                                                                                                                                                                          g
                                                                                                                                                                                                  à
                                                                                                                                                                                                                  ò
                                                                                                                                                                               g
                                                                                                                                                                                       ò
                                                                                                                                                                                            셤
                                                                                                                                               8
                                                                                                                                                     g
                                                                                                                                                            8
                                                                                                                                                                   a
                                                                                                                                                                          ð
                                                                                                                                        셤
                                                                                                 g
                                                                                                        ò
                                                                                                             g
                                                                                                                     8
                                                                                                                          g
                                                                                                                                 ð
                                                                                           ò
                                                                              ò
                                                                                                                                                                                                            1563
                                                                                                                                                                                               1503
                                                                                                                                                                    1383
                                                                                                                                                                                 1443
                                                                                                                                                                                                     1203
                                                                                                                                       340
                                                                                           1143
                                                                                                                                                                          280
                                                                                                                      240
                                                                                                                                    260
                                                                                                         220
                                                    140
                                                           903
                                                                 ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLyLySIlePheCysIle 160
                                                                        963
                                       120
                                              843
                         ValileGiniysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                783
                   723
      663
            80
                                                                                                                                                                                           ValSerGlnThrLysileArgileileSerThrIleIlePheileLeuPheGlyCysVal
                                                                                                                      ValThralaGluPheLysGluThrargArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                   AlaileTyrDheValVallleThrLeuThrThrIleGlyDheGlyAspTyrValAlaGlY
                                                    GlubeulleGlnGlnrleValAlaAlarleAsnAlaGlyrleIleProLeuGlyAsnSer
1587
                                                                                                                                                                                                                   GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                       1384
                                                                                                                                                                                                              1504
                                                                                                                                                                                          321
                                                                                                                                                                                                        341
                                                                                                                                                                                                                     361
                                                                                                                                                                             301
                                                                                                                               1144
                                                                                                                                            1204
                                                                                                     1024
                                                                                                                  1084
                                                                                                                         221
                                                                                                                                      241
                                                                                 161
                                                                                       964
                                                                                              181
                                                                                                            201
                                                             844
                                                                    141
                                                                           904
                      664
                            81
                                   724
                                         101
                                               784
                                                       121
               61
                                                                                                                                                                                   g
                                                                                                                                                                                          ò
                                                                                                                                                                                                셤
                                                                                                                                                                                                        δ
                                                                                                                                                                                                              염
                                                                                                                                                                                                                     ò
                                                                                                                                                                     8 &
                                                                                                                                          유
장
유
                                                                                                                                                                ઠે
                                                                                                    g
                                                                                                         강 쉽
                                                                                                                       8 8 8
                                                           8 & 8
                                                                                 ò
                                                                                      ል ጵ
                                                    ⋧
                                         ⋧
                                              ద
                                  g
       g
              장
임
                           ò
```

US-09-236-080-1 ; Sequence 1, Application US/09236080 ; Patent No. 6242217

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                          668
                                                                                                                                                                                                                                                                                                                                                                                                                                                   728
                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                  809
                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                488
                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                        428
                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                       308
                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                      188
                                                                                                                                                                                            128
                                                                                                                                                                                                          09
                                                                                                                                                                                                                                 80
                                                                                                                                                         20
                                                                                                                                                                                 40
                                                                                                                                                                    68
                                                                                                                                                                                                                                                                                                                                                                                                                                      GluLeulleGlnGlnrIeValAlaAla1leAsnAlaGly1leIleProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                          GlyAlaAlaValpheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                          1246
356
8
4
0
                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                             US-09-655-272-4 (1-370) x US-09-236-080-1 (1-1246)
GENERAL INFORMATION:
APPLICANT: Helen Meadows
APPLICANT: Conrad Chapman
TITLE OF INVENTION: NO. 6242217el Compounds
FILE REPERENCE: 6730031
CURRENT APPLICATION NUMBER: US/09/236,080
CURRENT FILING DATE: 1999-01-25
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FRAELSEQ for Windows Version 3.0
SEQ ID NO 1
                                                                                                   3.47e-232
1833.00
98.91%
96.74%
97.34%
                                                                       TYPE: DNA ORGANISM: Homo sapiens
                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                               Alignment Scores Pred. No.:
                                                                                                                                                                                                                                                                                                                                                     429
                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                              489
                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                       549
                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                         699
                                                                                   US-09-236-080-1
                                                                                                                                                                                                                                                                                                                             369
                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                    189
                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                        61
                                                                                                                                                             ч
                                                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

us-09-655-272-4.rni

```
1478 ATCAAGGCCCATGCGGCAGAGGCGAAGGCCAATGTCACGGCTGAGTTCCGGGAGACACGG 1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||:::||||
1598 GAGGGCCGGGGGCCTGGACCAGGGGCCCACTCACTGGACATGCTGTCCCCCGAG 1657
                                                                                                                                                                                                                                                                                                         1297
                                                                                                                                                                                                                                                                                                                               330 ArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVal----- 346
                                                                                                                                                                                                         1177
                                                                                                                                                                                                                                                           1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             347 ---LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365
                                                                                                  289
                                                                                                                                                                                                                                                                                                                                                                                                                               290 serMetileGlyAspTrpLeuArgValIleSerLysFLysThrLysGluGluValGlyGlu 309
                                                                                                                                   190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrileIlePhelleLeuPheGlyCysValLeuPheValAlaLeuProAlaValIlePhe
                                                                                                                                                                                                                                                                                               TyriysprovalvalTrpPheTrplleLeuValGlyLeuAlaTyrPheAlaAlaValLeu
                                                                                                                                                                                                                                                                                                                                                                                             LysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThr
                                                                                                                                                                                   191 LysvalgiuAspThrPheileLysTrpAsnvalSerGinThrLysileArgIleileSer
                                                                                                                                  GlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAla
SerSerPhePhePheAlaGlyThrValIleThrThrIleGlyPheGlyAsnIleSerPro
                                                                                    ArgThrGluGlyGlyLysIlePheCysIleIleTyrAlaLeuLeuGlyIleProLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/09432470
; Sequence 1, Application US/09432470
; Patent No. 6452197
; GENERAL INFORMATION:
APPLICANT: COURAGE MAICCOLM DUCKWORTH
; APPLICANT: COURAGE GEALD CHAPMANIS
; TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REPERENCE: GP-30190
; CURRENT APPLICATION NUMBER: UK/99/432,470
; CURRENT PILING DATE: 1999-11-03
; EARLIER PILING DATE: 1999-10-07
; EARLIER PILING DATE: 1999-11-03
; NUMBER OF SEQ ID NOS: 4
; SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .658 AAGCGCTCT 1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366 MetArgThr 368
                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                                          231
                                                                                                                                                                                                                                                                                                                                                                                         270
                                                                                                                                                                   1058
                                                                 938
                   878
                                          131
                                                                                           151
                                                                                                                                          171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                   셤
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                        ŝ
                                         ò
                                                               셤
                                                                                                             셤
                                                                                                                                          ò
                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnalaGlyIleIleFroLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGly 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HigalaCysvalasnSerThrGluLeuAspGluLeuileGinGlnIleValAlaAlaIle 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34 GluSerAspSer-----AlaIleAsnValMetLysTrpLysThrValSerThrIle 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  638 GAAGGCACCTCCAAAGGGGGCTTGCAGACCGTCATGAAGTGGAAGACGGTGGTTGCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProGlnGlulleSerGlnArgThrThrileValileGlnLysGlnThrPheIleAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2730
247
52
67
17
                                                                                                                                                                                                                                                                  APPLICANT: Drmanac, Radaje T.
TITLE OF INVENTION: No. 6783969el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SOFTWARE: pt_Lgenes Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-4 (1-370) x US-09-799-451-432 (1-2730)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AlaAlaProAspLeuLeuAspProLysSerAla--
                       Sequence 432, Application US/09799451
Patent No. 6783969
GENERAL INFORMATION:
                                                                                                                         Zhang, Jie
Xue, Aldong J.
Zhao, Oing A.
Wang, Jian-Rui
Ma, Yunging
Yamazaki, Victoria
Chen, Rui-hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.73e-154
1247.50
78.07%
64.49%
66.25%
                                                           Tang, Y. Tom
Zhou, Ping
Goodrich, Ryle
Asundi, Vinod
Ren, Feiyan
                                                                                                                                                                                                                                      Yonghong
                                                                                                                                                                                                               Zhiwei
Dunrui
                                                                                                                                                                                                                                                                                                                                                                                                                                   ; NAME/KEY: CDS
; LOCATION: (473)..(2086)
US-09-799-451-432
                                                                                                                                                                                                                                                   Wehrman, Tom
                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                              Ghosh,
                                                                                                                                                                                                               Wang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ignment Scores:
                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111
                                                                                       APPLICANT:
                                                                                                   APPLICANT:
APPLICANT:
                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                          APPLICANT
                                                                                                                                                                                                                                                                APPLICANT
                                                                                                                                                                                                                APPLICANT
```

셤 ò 셤 ò

à

g à g

엄 ò

ઠ g ò

ઠે 셤 ઠે 셤 ò ద ò ద ò g 8 셤 Š g õ 8 ઠ a Š 셤 ઠે

```
140 ileThrThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLySilePheCys 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180 GlnieuglyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrp 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeulleGlnGlnIleValAlalleAsnAlaGlyIleIleProLeuGlyAsnSerSer 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    122 AsnGlnValSerHis-----TrpAspLeuGlySerSerPhePhePheAlaGlyThrVal 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                160 IleIleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157 GAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGAGCGACCAGGAGCTGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :::||||||:::||||||||
457 CGGCTGGGCCTTGCTGGCTCACATTGAAGCCATCTTCTTGAAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          397 ATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGGAC
                                                                                                                                                                                                                                                                                                                                                             1218
145
60
77
2
                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-655-272-4 (1-370) x US-09-432-470-3 (1-1218)
                                                                                          APPLICANT: David Malcolm Duckworth
APPLICANT: Conrad Gerald Chapman
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP-30190
CURRENT APPLICATION NUMBER: US/09/432,470
CURRENT FILING DATE: 1999-11-03
EARLIER PILING DATE: 1999-10-07
EARLIER PILING DATE: 1999-10-07
EARLIER PILING DATE: 1998-11-03
EARLIER FILING DATE: 1998-11-03
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 3
SEQ ID NO 3
                                       US-09-432-470-3
; Sequence 3, Application US/09432470
; Patent No. 6426197
                                                                                                                                                                                                                                                                                                                                                            3.88e-95
797.00
72.18%
51.06%
42.33%
841 ACAGTGACAGCG
                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                LENGTH: 1218
                                                                                                                                                                                                                                                                                                                        US-09-432-470-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                102
                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAla 319
                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280 ValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIle 299
                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140 IleThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCys 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160 IleIleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAsp 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu 101
                                                                                                                                                                                                                                                                                                                                                                               LeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSerSer 121
                                                                                                                                                                                                                                                                                                                                                                                                                                      122 AsnGlnValSerHis-----TrpAspLeuGlySerSerPhePhePheAlaGlyThrVal 139
                                                                                                                                                                                                             61
                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                          :::||||||:::|||||||
421 CGGCTGGGCTTCCCTGCGCCATGGCTCACATTGAAGCCATCTTCTTGAAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220 ValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnLeuGlyThrIlePheGlyLysGlyileAlaLysValGluAspThrPheIleLysTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240 AspAlaIleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gecegeaccccaggcaggacrccccggccrarcagccgcragigidaticagarccid
                                                                                                                                                                                                                                                                  62 AlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AsnyalSerGlnThrLysIleArgIleIleSerThrIleIlePhelleLeuPheGlyCys
                                                                                 1182
145
60
77
1
                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                 US-09-655-272-4 (1-370) x US-09-432-470-1 (1-1182)
                                                                                                                                                      Gaps:
                                                                                3.69e-95
797.00
72.18%
51.06%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320 AsnValThrAla 323
              TYPE: DNA ORGANISM: HOMO SAPIENS
                                                                                              Score:
Percent Similarity:
Best Local Similarity:
                                                                    Alignment Scores:
Pred. No.:
LENGTH: 1182
  ; LENGTH: 1182
; TYPE: DNA
; ORGANISM: HOI
US-09-432-470-1
                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                             42
                                                                                                                                                                                                                                                                                                                                                                               102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                         Query Match
```

179

456

396

엄

유

ે

ઠે

셤

유

8

ઠે

336

216

101

96

61

576 239

us-09-655-272-4.rni

```
MetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-236-080-3
                                                                                                                                                                                                                                                                                                                                                                                                200
           42
                                                                                                                                                       102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                           g
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                   ò
                                셤
                                                         ò
                                                                                                       δ
                                                                                                                               g
                                                                                                                                                       ò
                                                 969
                                                                         279
                                                                                               756
                                                                                                                      ValGiyLeuAlaTyrPheAlaAlaValLeuSerMetileGiyABpTrpLeuArgValIle 299
                                                                                                                                              816
                                                                                                                                                                   SerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAla 319
                                                                                                                                                                                  577 CIGCICITIGICCICACGCCCACGTICGIGITCTGCTAIAIGGAGGACTGGAGCAAGCTG 636
                         259
                                                                       260 GlyGlySerAspIleGluTyrLeuAspPheTyrLysProValvalTrpPheTrplieLeu
                                                                                    :::||||||||||||||||||||||||:::|||||||:::
ctcggcctggcttacttcgcctcagtgctcaccaccatcggaactggctgcgaatagt
                                        240 AspAlaIleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6569662el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-655-272-4 (1-370) x US-09-620-312D-195 (1-3996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/620,312D CURRENT FILING DATE: 2000-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE: 2000-07-19
PRIOR PEDILACTION NUMBER: 09/52,317
PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
NUMBER OF SEQ ID NOS: 1105
SOFTWARE: PL_genes Version 1.0
                                                                                                                                                                                                                                                                                       Sequence 195, Application US/09620312D
Patent No. 6569662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2.82e-94
797.00
72.18%
51.06%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wang, Zhiwei
John Tillinghast
                                                                                                                                                                                                                                                                                                                             Tang, Y. Tom
Liu, Chenghua
Asundi, Vinod
Zhang, Jie
Ren, Felyan
Chen, Rui-hong
                                                                                                                                                                                                                        320 AsnValThrAla 323
                                                                                                                                                                                                                                               877 ACAGTGACAGCG 888
                                                                                                                                                                                                                                                                                                                                                                                                                                         Yonghong
                                                                                                                                                                                                                                                                                                                                                                                                     Zhao, Qing A.
Wehrman, Tom
Xue, Aidong J
Yang, Yonghon
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhou, Ping
Ma, Yunqing
Wang, Dunrui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           784CIP2B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhiwe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (3886)..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                     INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LOCATION: (52)
US-09-620-312D-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
LOCATION: (52)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 195
LENGTH: 3996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                            280
                                                                                                                                                   757
                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                                                                                               셤
                                                                                                                                                                           à
                                                                                                                                                                                                  g
                                                                                                                                                                                                                         Š
                                                                                                                                                g
                              ò
                                                      셤
                                                                              8
                                                                                                   g
                                                                                                                            ò
```

```
2388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2328
                                                                                                                                                                                                                                                                                                                          2028
                                                                                                                                                                                                                                                                                                                                                                                         2088
                                                                                                                                                                                                                                                                                                                                                                                                                                            259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279
180 GlnieuglyThrIlePheGlyLysGlyJleAlaLysValGluAspThrPheIleLysTrp 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                121
                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260 GlyGlySerAspIleGluTyrLeuAspPheTyrLySProValValTrpPheTrplleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2329 decegeaccccaegeaccccceeccratcaeccccaeccraticaecccreeteres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300 SerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240 AspAlaIleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280 ValGiyLeuAlaTyrPheAlaAlaValLeuSerMetileGiyAspTrpLeuArgValIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnvalSerGlnThrLys1leArg1le1leSerThr1le1lePhe1leLeuPheGlyCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220 ValLeuphevalalaLeuproAlaValIlepheLySHisIleGluGlyTrpSerAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu
                                                                                                                                                               LeulleglnglnileValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSerSer
                                                                                                                                                                                     140 ilenhrihriledlyPhedlyAsnileSerProArgThrdluGlyGlyLysIlePheCys
                                                                                                                                                                                                                                                                                                           160 IleIleTyrAlaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAsp
                                                                                                                                                                                                                                                                                                                                                                             122 AsnGlnValSerHis-----TrpAspLeuGlySerSerPhePhePheAlaGlyThrVal
                                 62 AlahlaValPheLysAlaLeuGluGlnGroGlnGluIleSerGlnArgThrThr1leVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/09236080
; Patent No. 6242217
; GENERAL INFORMATION:
APPLICANT: Helen Meadows
; APLICANT: Conrad Chapman
; TITLE OF INVENTION: No. 6242217el Compounds
FILE REFERENCE: GP30031
; CURRENT APPLICATION NUMBER: US/09/236,080
; CURRENT PILING DATE: 1999-01-25
; NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                509 ACAGTGACAGCG 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320 AsnValThrAla 323
```

us-09-655-272-4.rni

g ò 셤

ઠે

g

Š g

Š

q

Š

a

δ

```
615
                                                                                                                                     153
                                                                                                                                                                     113
                                                                                                                                                                                                   213
                                                                                                                                                                                                                                  133
                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                             134 PhepheAlaGlyThrValIleThrThrIleGlyPheGlyAsnIleSerProArgThrGlu 153
                                                                                                                                                                                                                                                                                                                          327
                                                                                                                                                                                                                                                                                                                                                        173
                                                                                                                                                                                                                                                                                                                                                                                       378
                                                                                                                                                                                                                                                                                                                                                                                                                  174 LeualaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGlu 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305 GluGluValGlyGluPheArgAla-----HisAlaAlaGluTrpThrAlaAsnValThr 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                           93
                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   676 TTCGTGGAGCTCTGGATCTACTTGGGGCTGGCCTGG------CTGTCCCTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  343 AlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                                                                                                                94 AAGGAGGCCAAGAAAACTACTACACACAGAAGCTGCATCTGCTCAAGGAGTTCCCGTGC
                                                                                                                                                                                                                                                  254 PheGlyAspTyrValAlaGly---GlySerAspIleGluTyrLeuAspPheTyrLysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54 ValValLeuTyrLeuIleIleGlyAlaAlaValPheLy8AlaLeuGluGlnProGlnGlu
                                                              34 ATCATCTTCTACCTGGCCATCGGGGCGGCGATCTTCGAAGTGCTGGAGGGCGACCTGG
                                                                                                                                                                                     114 IlelleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhe
                                                                                                                                                                                                                                                                                                                                                        154 GlyGlyLysIlePheCysIleIleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeu
                                                                                                                                                                                                                                                                                                                                                                          328 GCCGGTCGCCTCTTCTGTGTTTTCTATGGTCTTCGGGGTGCCGCTC-----TGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 379 creacergearc---agrecccreecaagrerriceseseacergecaagagacrages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGITICCITACCAAGAGAGGGGGGGTCTGCGGAAGGCGCAGATCACGTGCACAGTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214 PhelleLeuPheGlyCysValLeuPheValAlaLeuProAlaValIlePheLysHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            556 GAGGGGTGGAACTACATCGAGGGCCTCTACTACTCCTTCATCACCATCTCCACCATCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   616 ricegreactrorececedenergaaccecaaceaccacececereracecera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 273 ValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------ArgVallleSerLysLysThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784 CGACGGAAGGAGTCCTTTGAGAGCTCCCCACACTCCCG-GAAGGCCCTGCAGGTGAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       323 AlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPheGlnArg
                                                                                                        74 IleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGlnHisAlaCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194 AspThrPhelleLysTrpAsnValSerGlnThrLysIleArgileIleSerThrllelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234 GluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThrThrIleGly
                                                                                                                                                                   ValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               891 GGAAGAGCCTACAACGACCTCATCAAGCAGATCGGGAAGAAGGCCATGAAGACAAG
                US-09-655-272-4 (1-370) x US-09-561-763-3 (1-1497)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/09431367B; Patent No. 6670149; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              293 GlyAspTrpLeu-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Curtis, Rory A.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-09-431-367B-3
                                                                                                                                                                   94
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                    셤
                                                                                                        ઠે
                                                                                                                                 셤
                                                                                                                                                                                           셤
                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                            Š
                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/09561763
; Sequence 3, Application US/09561763
; Patent No. 6664373
; GENERAL INPORMATION:
; APPLICANT: Curtis, Rory A.J. et al.
; TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR
; TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR
; CURRENT APPLICATION NUMBER: US/09/561,763
; CURRENT FILING DATE: 2000-04-29
; PRIOR APPLICATION NUMBER: 09/431,367
; PRIOR APPLICATION NUMBER: US 09/259,951
; RUNGR APPLICATION NUMBER: 01-03-1999
; RUNGR APPLICATION NUMBER: 01-03-1999
; RUNGR APPLICATION NUMBER: 01-03-1999
; SEQ ID NOS: 12
; SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              158
                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                       178
                                                                                                                                                                                                                                                                                                                                                                                                         AspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLys 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                          CysilelleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGly
                                                                                                                                                                                                                                                                AsnSerAsnGlnValSerHieTrpAspLeuGlySerSerPhePhePheAlaGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATCAGCTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAG
                                                                                                                                                                                                                                                                                AACACCTCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTGCTGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1497
97
66
131
26
                                                                                                                        321
105
2
0
0
                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                x US-09-236-080-3 (1-321)
SOPTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 3 LENGTH: 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CysValLeuPheValAlaLeu 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 TGTGTACTCTTTGTGGCTCTG 321
                                                                                                                     4.98e-63
547.00
100.00%
98.13%
29.05%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.2e-44
416.50
51.10%
30.41%
22.12%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , LOCATION: (1)..(1497)
US-09-561-763-3
                                                                                                                                                                                                                                  US-09-655-272-4 (1-370)
                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                            ; TYPE: DNA
; ORGANISM: Homo
US-09-236-080-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
US-09-561-763-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219
                                                                                                                                                                                                                                                                                             ,-
                                                                                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                119
                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                       159
                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                         . No.:
                                                                                                                                        Score:
```

```
US-09-561-763-1

| Sequence 1, Application US/09561763 |
| Patent No. 6664373 |
| GENERAL INFORMATION: |
| APPLICANT: Curtis, Rory A.J. et al. |
| APPLICANT: Curtis, NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR |
| TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR |
| FILE REPERBNCE: NNI-074CP2 |
| CURRENT APPLICATION NUMBER: US/09/561,763 |
| PRIOR APPLICATION NUMBER: 09/431,367 |
| PRIOR FILING DATE: 01-11-1999 |
| PRIOR FILING DATE: 01-11-1999 |
| PRIOR FILING DATE: 01-03-1999 |
| PRIOR FILING DATE: 01-03-1999 |
| NUMBER OF SEQ ID NOS: 12 |
| SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94 ValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGly 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277 ATTITGCAGCGACCGTCATTACACCACTTGATAGCAATGTGGCTCCCCAAGACCCCC 336
                                                                                                                                                          323 AlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPheGlnArg 342
                                                                                                                                                                               ::: [||||||
843 GAGCACCCTCCAAGACGTCAACATCTTCAGCTT------TCTTTCCAAGAA 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114 IlelleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134 PhePheAlaGlyThrVallleThrThrIleGlyPheGlyAsnIleSerProArgThrGlu
                                                                                                                                                                                                                        343 AlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                                                                                                                                                                                                                                  54 ValValLeuTyrLeulleileGlyAlaAlaValPheLyBAlaLeuGluGlnProGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305 GluGluValGlyGluPheArgAla-----HisAlaAlaGluTrpThrAlaAsnValThr
                                                                                                                74 IleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGlnHisAlaCys
--CTGTCCCTTTT
                                 ---ArgValileSerLysLysThrLys
                                                   3452
97
66
131
26
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
   676 TICGIGGAGCICIGGAICTACTIGGGGCIGGCCIGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-4 (1-370) x US-09-561-763-1 (1-3452)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84e-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          416.50
51.10%
30.41%
22.12%
                                    293 GlyAspTrpLeu----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: CDS
; LOCATION: (10)
US-09-561-763-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 1
LENGTH: 3452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                               셤
                                                                                                 ò
                                                                                                                          셤
                                                                                                                                                                ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                                              Š
                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PheGlyAspTyrValAlaGly---GlySerAspIleGluTyrLeuAspPheTyrLysPro 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Troderidacutrieredecediereaaccccadcccaactaccaccccreraccccrare 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      273 ValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIle 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194 AspThrPhelleLysTrpAsnValSerGlnThrLysIleArgileIleSerThrllelle 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGTICCTIACCAAGAGAGGGGTGTGAGTCTGCGGAAAGGCGCGCAGATCACGTGCACAGTCATC 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PhelleLeupheGlyCysValLeupheValAlaLeuproAlaValllePheLysHislle 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThrThrIleGly 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     114 IlelleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhe 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134 PhephealaGlyThrValileThrThrileGlyPheGlyAsnIleSerProArgThrGlu 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     268 ATTITIGCAGCGACCGICATIACCACCATIGGATATGGCAATGTGGCTCCCCAAGACCCCC 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154 GlyGlyLys1lePheCys1leIleTyrAlaLeuGlyIleProLeuPheGlyPheLeu 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               174 LeualaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGlu 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496 ricarcergragacionecraerceacergergareceacerregraricargergaer 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94 AAGGAGGCCAAGAAAAACTACTACACACAGAAGCTGCATCTGCTCAAGGAGTTCCCGTGC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGly 113
                                                                                                                                                                                                                                                                                                                                                                                                                                            73
                                                                                                                                                                                                                                                                                                                                                                                                                                                             34 ATCATCTTCTACCTGGCCATCGGGGCGGCGATCTTCGAAGTGCTGGAGAGGCCACACTGG 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93
                                                                                                                                                                                                                                                                                                                                                                                                                                           74 IleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGlnHisAlaCys
 TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B
CURRENT FILING DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR FILING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 3
LENGTH: 1497
                                                                                                                                                                                                                                                                                                1497
97
66
131
26
8
                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370) x US-09-431-367B-3 (1-1497)
                                                                                                                                                                                                                                                                                                               416.50
51.10%
30.41%
22.12%
                                                                                                                                                                       TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                   ; LOCATION: (1)..(1497)
US-09-431-367B-3
                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                      NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                   Query Match:
DB:
                                                                                                                                                                                                                                                                                                   . No. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
```

222 133 276 153

102

93

Thu

셤

ઠ

8 ઠે g

ò

g ઠે 셤 à 임

ઠે

엽

ò

ઠ

g

셤

ò

셤

셤 ઠે

ઠે

```
113
                                                                                                                                                                                                                                                                                                                                                                                                                222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              624
                                                                                                                                                     43 ATCATCTTCTACCTGGCCATCGGGGGGGATCTTCGAAGTGCTGGAGGAGCCACACTGG 102
                                                                                                                                                                                                                                                                                         103 AAGGAGGCCAAGAAAACTACTACACACAGAAGCTGCATCTGCTCAAGGAGTTCCCGTGC 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114 IleIleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhe 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134 PhePheAlaGlyThrValIleThrThrIleGlyPheGlyAsnIleSerProArgThrGlu 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154 GlyGlyLysllePheCysllelleTyrAlaLeuLeuGlylleProLeuPheGlyPheLeu 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGlu 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PheGlyAspTyrValAlaGly----GlySerAspIleGluTyrLeuAspPheTyrLysPro 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  625 TTCGGTGACTTTGTGGCCGGTGTGAACCCCAGCGCCCAACTACCACGCCCTGTACCGCTAC 684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273 ValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIle 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------ArgvalileSerLysLysThrLys 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305 GluGluValGlyGluPheArgAla-----HiBAlaAlaGluTrpThrAlaAsnValThr 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                323 AlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPheGlnArg 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----TCTTTCCAAGAA 899
                                                                                                                                                                                                                                     93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343 AlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337 GCCGGTCGCCTCTTCTGTGTTTTTTTATGGTCTTTCGGGGTGCCGCTC-----TGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhelleLeuPheGlyCysValLeuPheValAlaLeuProAlaValllePheLysHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54 ValValLeuTyrLeuIleIleGlyAlaAlaValPheLyBAlaLeuGluGlnProGlnGlu
                                                                                                                                                                                                                                                                                                                                                      94 ValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGly
                                                                                                                                                                                                                                                                                                                                                                                           277 ATTITIGCAGCGACCGTCATTACCACCATTGGATATGGCAATGTGGCTCCCAAGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194 AspThrPheIleLysTrpAsnValSerGlnThrLysIleArgIleIleSerThrIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              733 GTCAACTGGAAGGTGAGCATGTTTGTGGAAGTCCACAAAGCCATTAAGAAGCGGCGGCG
                                                                                                                                                                                                                                     74 IleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGlnHisAlaCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThrThrIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900 GGAAGAGCCTACAACGACCTCATCAAGCAGATCGGGAAGAAGGACCATGAAGACAAG
                                                             US-09-655-272-4 (1-370) x US-09-431-367B-1 (1-3452)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          // Sequence 13, Application US/09362842
// Patent No. 6511824
// GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293 GlyAspTrpLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
US-09-362-842-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       234
                                                                                                                                                              유
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
GlyglylysilepheCysileIleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeu 173
                                                                                                                                                                                                                                                                      CAGTICCTIACCAAGAGAGGIGIGAGGTCTGCGGAAGGCGCAGATCACGTGCACAGTCATC 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheGlyAspTyrValAlaGly---GlySerAspIleGluTyrLeuAspPheTyrLysPro 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273 ValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIle 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCGTGGAGCTCTGGATCTACTTGGGGCTGGCCTGG-------CTGTCCCTTTT 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------ArgVallleSerLysLysThrLys 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305 GluGluValGlyGluPheArgAla-----HisAlaAlaGluTrpThrAlaAsnValThr 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         793 CGACGGAAGGAGTCCTTTGAGAGCTCCCCACACTCCCG-GAAGGCCCTGCAGGTGAAGGG 851
                                                                                                                    LeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGlu 193
                                                                                                                                                                        Creacerecare---aerecciredecaagricireedecaacereccaagacrages 444
                                                                                                                                                                                                                                                                                                                                                         PhelleLeuPheGlyCysValLeuPheValAlaLeuProAlaValllePheLysHisIle 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         323 AlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPheGlnArg 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                852 GAGCACAGCCTCCAAGGACGTCAACATCTTCAGCTT-------TCTTTCCAAGAA 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |||||||::::::|||
TICATCGIGIGGGGCGTCCTAGICCACCCGTCGTATTCATGGTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343 AlaThrSerValLyBArgLyBLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                    Troccicio en reconstructo de la contra della 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Curtis, Rory A.J.

APPLICANT: Curtis, Rory A.J.

TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP
CURRENT APPLICATION NUMBER: US/09/431,367B
CURRENT FILING DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR FILING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver: 2.0
SEQ ID NO 1
LENGTH: 3452
                                                                                                                                                                                                                                     AspThrPhelleLysTrpAsnValSerGlnThrLysIleArgileIleSerThrIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThrThrIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3452
97
66
131
26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 1, Application US/09431367B
; Patent No. 6670149
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 293 GlyAspTrpLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.84e-44
416.50
51.10%
30.41%
22.12%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (10)..(1506)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
US-09-431-367B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-431-367B-1
                                                             337
   154
                                                                                                                                                                              388
                                                                                                                                                                                                                                     194
                                                                                                                                                                                                                                                                                               445
                                                                                                                                                                                                                                                                                                                                                                                                                505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         685
                                                                                                                                                                                                                                                                                                                                                         214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
```

801

```
30 GlySerSerPhePhePhePheAlaGlyThrValileThrThrileGlyPheGlyAsnIleSer 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 ProArgThrGluGlyGlyLysIlePheCysIleIleTyrAlaLeuLeuGlyIleProLeu 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   133 GGCCGCGCGCGCAGGACTCCAGCCGCAGCGCGACAAGTGGGAGCTGTTGCAG 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90 GlnHisAlaCygValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAla 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        110 IleAsnAlaGlyIleIleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeu 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            921
                                                                                                                                                                                                                                                                                                                                                  APPLICANT: CURTIS, ROLY A.J. et al.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MAI-O'4CP2
CURRENT APPLICATION NUMBER: US/09/561,763
CURRENT FILING DATE: 2000-04-29
PRIOR PELING DATE: 09/431,367
PRIOR PELING DATE: 01-11-1999
PRIOR FILING DATE: 01-03-1999
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PALENTIN Ver. 2.0
SEQ ID NO 6
LENGTH: 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGGCTCCTTCTTTTCTGTGTCCACCATCACCACCATTGCCTATGGCTATGCCACCTGGGC
PheTyrLysProValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaVal
                                                                                                                                                          |||::::::
|TAACAGTATTTTACGATATACCCCAACTCAATTTGGGCCTACTCTTCACAACTAGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70 GlnProGlnGluIleSerGlnArgThrTleValIleGlnLysGlnThrPheIleAla
                                                                                          |||||||
802 TTATACAAAATAATGACTACATGTTACCTTTTCCTGGGTATAAACAATAATGATGTTGACG
                                                                                                                                  ----TrpLeuArgVallleSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 IlePhereuValValLeuTyrreuIleIleGlyAlaAlaValPherysAlaLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      996
88
51
95
14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                   302 LysThr -- LysGluGluValGlyGluPheArgAla 312
                                                                                                                                                                                                                       LeuSerMetIleGlyAsp---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        x US-09-561-763-6 (1-996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
                                                                                                                                                                                                                                                                    RESULT 14
US-09-561-763-6
Sequence 6, Application US/09561763
Patent No. 6664373
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.86e-41
387.00
56.05%
35.48%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1)..(996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-561-763-6
                                                                     269
                                                                                                                                       289
                                                                                                                                                                      862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                               셤
                                                                     8
                                                                                             d
                                                                                                                                     δ
                                                                                                                                                                   g
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysTrpAsnValSerGln-----------ThrLysIleArgilelleSer 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             140 ilerhrihrilediyPhediyAsnıleSerProArgThrGluGlyGlyLysılePheCys 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160 IlelleTyrAlaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAsp 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :::||| ||||||||:::
CAAIGGCTTAATICAAAATTAGGACACCTTTATCAGCCTCTTCGAATACGAATCGTCCAT 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrileilePheileLeuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LyshisIleGlu---GlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeu 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   682 GCGTCTTTGGAACCAGAATGGGACTATTTGGATTCTCTTTACTATTGCTTTATATCCCTC 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 AspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsn 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVal 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180 Glnieu-----GlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIle 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACGAGGAAATCGGTTTACTTCCCAAAATTGTCGAAGGAAATCGCAACAAAATTATTGGCA 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60 IleGlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThr 79
                                                                                                                                                                                                                                                                                                                                                                                                                         SerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsnValMetLys 43
      TWIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44 TrpLysThrVal------SerThrIlePheLeuValValValLeuTyrLeuIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80 IleValIleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeu
TITLE OF INVENTION: NUCLEIC ACIDS AND POLYPEPTIDES OF INVERTEBRATE TITLE OF INVENTION: CHANNELS AND METHODS OF USE FILE REPRENCE: 7326-104
CURRENT APPLICATION NUMBER: US/09/362,842
CURRENT FILING DATE: 1999-07-28
PRIOR FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 70
SOFTWARE: PATENTIN VEY: 2.1
SOFTWARE: PATENTIN VEY: 2.1
SEQ ID NO 13
LENGTH: 1086
                                                                                                                                                                                                                                                                       1086
102
69
107
36
                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                          US-09-655-272-4 (1-370) x US-09-362-842-13 (1-1086)
                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Leptinotarsa decemlineata
US-09-362-842-13
                                                                                                                                                                                                                                                                2.29e-42
397.50
54.63%
32.59%
                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                              No.:
```

8 8 8

ઠે 용 8 g 8 & 8

90 90 90 00 00 00

8 8 8 g ð 셤 ð 369

원

ઠે

252

```
Search'completed: February 3, 2005, 03:48:51
Job time : 109.727 secs
                                                                                                                                   150
                                                       g
                                                                            ò
                                                                                                       원
                                                                                                                                  ò
                                                                                                                                                    셤
                                                                                                                                                                               ò
                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                    ઠે
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                 245
                                                                                                                                                                                             ------AlaLysValGluAspThrPheIleLysTrpAsnValSerGlnThrLys 205
                                                                                                           525
                                                                                                                                   225
                                                                                                                                               246 ValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGlyGlySerAspIleGlu 265
                                                                                                                                                                                                                                            170 PheGlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIle 189
                                                            477
                                                                                                                                                                                                                                                                              ---TyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuValGlyLeuAlaTyr 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .33 GGCCGCGCGCGCAGGACTCCAGCCGCAGCTTCCAGCGCGACAAGTGGGAGCTGTTGCAG 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnHisAlaCysValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAla 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnProGlnGluIleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAla 89
                                                                                                                                                                               ProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheVal
AACCTCGTGGTGCTC-----AACCGACTGGGGCATCTCATGCAGGGGGTA
                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-09-431-367B-6
Sequence 6, Application US/09431367B
Sequence 6, Application US/09431367B
Sequence 6, Application US/09431367B
GENERAL INFORMATION:
APPLICANT: Curtis, Rory A.J.
TITLE OF INVENTION: NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR FILE REFERENCE: MNI-074CP
CURRENT PELLION DATE: 1999-11-01
PRIOR APPLICATION NUMBER: 09/259,951
PRIOR PILLING DATE: 1999-03-01
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PATENTIN Ver. 2.0
                                                                                                          478 AACCACTGGGCCAGCAGGCTGGGGGGCACC-----TGGCAG---GATCCTGACAG
                                                                                                                                  IleargileileSerThrileIlePheileLeuPheGlyCysValLeuPheValAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50 IlePheleuValValValLeuTyrLeuIleIleGlyAlaAlaValPheLy8AlaLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    996
88
51
95
14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-655-272-4 (1-370) x US-09-431-367B-6 (1-996)
                                                                                                                                                                                                                                                                                                                                           285 PheAlaAlaValLeuSerMetIle 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .86e-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               387.00
56.05%
35.48%
20.55%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: (1)..(996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-431-367B-6
                                                            430
                                                                                                                                                         526
                                                                                   190
                                                                                                                                   506
                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                              566
                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                      a
                                                                                                                                                                          8 6 8 6
                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                     g
                                                                           ⋧
                                                                                                                         중 음
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                    ઠ
```

```
189
                                                                                                                 149
                                                                                                                                                    369
                                                                                                                                                                                        169
                                                                                                                                                                                                                        429
                                                                                                                                                                                                                                                                                                                              205
                                                                                                                                                                                                                                                                                                                                                               525
                                                                                                                                                                                                                                                                                                                                                                                                  225
                                                                                                                                                                                                                                                                                                                                                                                                                                     585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          645
            252
                                             129
                                                                              309
                                                                                                                                                                                                                                                                               430 AACCICGIGGIGCIC-----AACCGACIGGGGCAICICAIGCAGCAGGAGIA 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        226 ProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheVal 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             246 ValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGlyGlySerAspIleGlu 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266 ---TyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuValGlyLeuAlaTyr 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    765
                                                                                                               130 GlySerSerPhePhePheAlaGlyThrVallleThrThrIleGlyPheGlyAsnIleSer
                                                                                                                                                                                                         110 IleAsnAlaGlyIleIleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeu
                                                                   310 GTGGGCTCCTTCTTTTTTTTTTTTTTTTTTACACCACCATTGGCTATGGCAACTGAGC
                                                                                                                                                                                   170 PheGlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIle
                                                                                                                                                                                                                                                                                                                              ------AlaLysValGluAspThrPheIleLysTrpAsnValSerGlnThrLys
                                                                                                                                                                                                                                                                                                                                                                                                  206 IleArgilelleSerThrilellePheileLeuPheGlyCysValLeuPheValAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            706 AGGTACCCACTGTGGTACAAGAACATGGTGTCCCTGTGGATCCTCTTTGGGATGGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       285 PheAlaAlaValLeuSerMetile 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766 CTGGCCTTGATCATCAAACTCATC 789
```

THIS PAGE LEFT BLANK

Length

Query Match

February

Run on:

Perfect score:

Sequence:

Scoring table:

Searched:

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Command line parameters:
-MODEL=frame+ p2n.model -DEV=xlh
-Q-0/cgn2 1/USPTO_spool/US09655272/runat_02022005_141716_6827/app_query.fasta_1.1102
-Q-6/cgn2 1/USPTO_spool/US09655272/runat_02022005_141716_6827/app_query.fasta_1.1102
-DB=bublished_Applications NA -OFMT=fastap -SUFFIX=rnpb -MINMATCH=0.1
-LOOPCL=0 -LOOPEXT=0 -UNITS=bits -STRAT=1 -END=-1 -MATRIX=blosum62
-TRANS=human40.cdi -LIST=45 -DOCALIGN=20 -THR SCORE_pct -THR MAX=100
-MAXIEN=2000000000 -USRR=US09655272_@CGN 1 1.626_@runat_02022005_141716_6827
-NCPUG=6 -LCPUG=3 -NO MMAP -LARGRQUERY -NGG_SCORES=0 -WAIT -DSPBLOCK=100
-LONGLOG -DEV TIMEOÜT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                             3, 2005, 01:34:36; Search time 648.464 Seconds (without alignments) 3278.486 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                1883
1 MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                              OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4300275 segs, 2872944193 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BLÖSUM62
Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-4
```

Database

Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
5: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
6: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
8: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
9: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
20: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
21: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Sequence 18, Appl Sequence 11, Appl Sequence 30, Appl Sequence 30, Appl Sequence 28, Appl Sequence 195, Appl Sequence 195, Appl Sequence 28, Appl Sequence 243, Appl Sequence 243, Appl Sequence 243, Appl Sequence 3, Appl Sequence 3, Appli Sequence 30, Appl Sequence 45, Appl Sequence 20, Appl Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 1, Appli Sequence 1, Appli Sequence 28, Appl Sequence 7, Appli Sequence 82, Appl Sequence 9, Appli Sequence 46, Appl Sequence 105, App. Sequence 1, Appli Sequence 42, Appl Sequence 1, Appl Sequence 5, Appli Sequence 1, Appli Sequence 432, Sequence 42, A Sequence 1, 1 Sequence 34, Sequence 38, Sequence 1, Sequence 1, Sequence 3, Sequence 1, Sequence 1, Sequence 5, Sequence 9 Sequence 3 Sequence 1 US-09-828-746-1 4 US-10-124-746-82 US-10-349-528-9 US-10-349-528-9 US-10-349-528-9 US-08-816-011-46 US-09-852-366-1 US-09-852-366-1 US-09-852-366-1 US-09-852-366-1 US-10-265-511-105 US-10-265-511-105 US-10-265-511-105 US-10-302-172-432 US-10-302-172-432 US-10-302-172-432 US-10-39-18 US-10-39-18 US-10-39-18 US-10-345-680-43 US-10-345-680-1 US-10-345-680-1 US-10-345-680-1 US-10-345-680-1 US-10-345-680-1 US-10-345-680-1 US-10-451-892-1 US-10-451-892-1 US-09-735-169A-1 US-09-735-171A-GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP-30031-D1
CURRENT APPLICATION NUMBER: US/09/828,746
CURRENT FILING DATE: 1099-01-25
PRIOR PRILING DATE: 1999-01-25
PRIOR RILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-10-09
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FESTERE OF WINDOWS VERSION 3.0
SEQ ID NO 5
LENGTH: 1994 ALIGNMENTS Sequence 5, Application US/09828746 Patent No. US20020028485Al GENERAL INFORMATION: 1408 2747 2772 3945 3945 3996 3996 3996 42.3 42.3 US-09-828-746-5 572.5 547 517 506.5 502.5 499.5 1247.5 1247.5 1247.5 1247.5 1247.5 1247.5 1247.5 797 797 797 797 797 797 797 797

```
100
                                                                        101 GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
           ValMetlysTrplysThrValSerThrIlePheLeuValValLeuTyrLeuIleIle 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128
                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaAlaValPheLysAlaLeuGluGlnGlnGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81 ValileGlnLygGlnThrPhelleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                     ValThralaGluPheLysGluThrargArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-655-272-4 (1-370) x US-09-828-746-1 (1-1246)
                                                                                                                                                               US-09-828 146-11

Sequence 1, Application US/09828746

Patent No. US20020028485A1

GENERAL INFORMATION:
APPLICANT: Helen Jane Meadows
APPLICANT: Conrad Gerald Chapman
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP-30031-D1
CURRENT APPLICATION NUMBER: US/09/828,746
CURRENT FILING DATE: 1999-01-04-09
PRIOR FILING DATE: 1999-01-25
PRIOR FILING DATE: 1998-01-27
PRIOR FILING DATE: 1998-01-27
PRIOR FILING DATE: 1998-01-27
PRIOR FILING DATE: 1998-10-09
NUMBER OF SEQ ID NOS: 6

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 1

LENGTH: 1246
                                                                                                            5.45e-189
1833.00
98.91%
96.74%
                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
Pred. No.:
                                                                                                                                                   RESULT 2
US-09-828-746-1
                                                                                                                                                                                                                                                                                                                                                                US-09-828-746-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      189
    301
                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             合
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                 qq
                                        ò
                                                     셤
                                                                        ò
                                                                                           임
                                                                                                               ઠે
                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValSerGlnThrLysileArgileileSerThrIleilePheileLeuPheGlyCysVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuPheValAlaLeuProAlaValIlePheLySHisIleGluGlyTrpSerAlaLeuAsp 240
                                                                                                                                                                                                                                                                      GlubeurleGlnGlnrleValAlaAlarleAsnAlaGlyrleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                              ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 160
                                                                                                                                                                                                                                                                                                                                                                                            843
                                                                                                                                                                                                                  663
                                                                                                                                           543
                                                                                                                                                                               603
                                                                                                                                                                                                                                     80
                                                                                                                                                                                                 9
                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlySerAsp11eGluTyrLeuAspPheTyrLysProValValTrpPheTrp11eLeuVal
                                                                                                                        41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                          1994
368
0
0
0
                                           Length:
Matches:
Conservative:
Mismatches:
                                                                                                        US-09-655-272-4 (1-370) x US-09-828-746-5 (1-1994)
                                                                               Indels:
                                          1.02e-192
1870.00
100.00%
100.00%
TYPE: DNA ORGANISM: HOMO SAPIENS
                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                 Alignment Scores:
Pred. No.:
Score:
                   US-09-828-746-5
                                                                                                                                                                                                                                                                                                                                                                                                                                          964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261
                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1084
                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                     844
                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                        664
                                                                                                                                                                                                                                        61
```

g &

ò 엄 ð 8 &

8 & 8 8

ò 8 8 Q S S 8 B 8

8 8

Dp ò 원

8 S ద ે ద ò g Š g δ 셤 δ 셤 à 셤 ò g ઠે g ઠે g ઠે d ઠે ď ઠે 셤

```
GluLeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                    110 TCGTTTTTCCACGAAACCCACAGTGCTTGCTTCCCGGGTGGAGAGTGACACGACCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyAlaAlaValPheLyBAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrIhrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470 ACAACCATAGGATTTGGAAACATCTCACGCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             530 ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S90 CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACATAGAAGGCTGGAGGTGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTTTTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                       PCT/US99/03826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3300
3356
8
8
4
0
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 6
PRIOR FILING DATE: EARLIER FILING DATE: 1999-01-19
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 1980-02-22
NUMBER OF FILING DATE: BARLIER FILING DATE: 1999-02-22
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 3300
                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                   x US-10-121-746-82 (1-3300)
                                                                                                                                                                                                                                                                              2.22e-188
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                              ...(1285)
                                                                                                                                       ; TYPE: DNA
; PRATURE:
; PRATURE:
; NAME/KEY: CDS
; LOCATION: (50)...(128E
US-10-121-746-82
                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      969 GTCACAGGCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGAGATTTATGACAAGTTC 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                        140
                                                                                        428
                                                                                                                         ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 160
                                                                                                                                                            488
                                                                                                                                                                                                                            489 ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG 548
                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                608
                                                                                                                                                                                                                                                                                                                                                                  668
                                                                                                                                                                                                                                                                                                                                                                                                   LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp 240
                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTTTGTGGGTCTGCCTGCGGATCATATTCAAACACATAGAAGGCTGGAGTGCCCTGGAC 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAAGACAAAAAGAAGGGGGGAGAGTTCAGAGCACACGCTGCTGAGTGGACAGCCAAAC 968
   IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                              LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                              ValSerGlnThrLysIleArgllelleSerThrllellePhelleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                   GTTAGTCAGACCAAGATTCGCATCATCAACAATCATATTTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaileTyrPheValValIleThrLeuThrThrIleGlyPheGlyAgpTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCATTTATTTTGTGGGTTATCACTCTAACTATTTGGATTTGGTGACTACGTTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlySerAsplleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTGTGTTCTGGATCCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCTTGCTTTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValThrAlaGluPheLysGluThrArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                       SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle
                                                                                                                                                          429 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Miller, Andrew P.
APPLICANT: Curran, Mark Edward
APPLICANT: Curran, Mark Edward
APPLICANT: Curran, Mark Edward
APPLICANT: Rutter, Marc
APPLICANT: Rutter, Marc
TITLE OF INVENTION: No. US20030036648Alel Human Potassium Channels
TITLE OF INVENTION NUMBER: US/10/121,746
CURRENT APPLICATION NUMBER: US/09/336,643A
PRIOR APPLICATION NUMBER: US/09/336,643A
PRIOR APLICATION NUMBER: US/09/336,643A
PRIOR APLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/076,687
PRIOR FILING DATE: EARLIER FILING DATE: 1998-08-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 82, Application US/10121746
Publication No. US20030036648A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 3
US-10-121-746-82
                                                                                        369
                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321
                                                        121
                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                549
                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                  609
                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                     699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341
                       309
                                                                                                                                                                                                                                                                181
```

349

289 100

80

109

169

40

229

60

140 469 160

409

180 589

529

649 220

200

240

769

```
1665
                                                                                                                                                                                                                                                                                                                                     1485
                                                                                                                                                                                                                                                                                                                                                                           1365
                                                                                                                                                                                                                                                                                            1425
                                                                                                                                                                                                                                                                                                                                                                                             1245
                                                                                                                                                                                                                                321 ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                              1185
                                                                                           1005
                                                                                                                      1065
                                                                                                                                                  1125
                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                        240
                                                                                                         160
                                                                                                                                                                 200
                                                                                                                                                                                            220
                                                                             140
                                   885
                      100
                                                                                                                                                                                                                                                                                                                                                                                                      LeuphevalalaLeuproAlaval11epheLysHis11eGluGlyTrpSerAlaLeuAsp
                                                                                                         141 ThrThr1leGlyPheGlyAsn1leSerProArgThrGluGlyGlyLyGlyLePheCysIle
                                                                                                                 ValSerGlnThrLysIleArglleIleSerThrlleIlePheIleLeuPheGlyCysVal
                      serAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValile
                                                                                     GluLeulleGlnGlnrleValAlaAlalleAsnAlaGly1leIleProLeuGlyAsnSer
Sequence 46, Application US/08816011
; Sequence 46, Application No. US20030165806A1
; Publication No. US20030165806A1
; GENERAL INFORMATION:
    APPLICANT: Price, Laura A. APPLICANT: Price, Mark H. APPLICANT: Price, Mark H. TILLE OF INVENTION: Potassium Channels, Nucleotide Sequences TITLE OF INVENTION: Encoding Them, and Methods of Using Same ; NUMBER OF SEQUENCES: 56
                                                                                                                                                                                                                                                                                                                                                                                                                            GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
US-08-816-011-46
                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                              1666
                                                                                                                                                                                                                               221
                                                                                                                                           161
                                                                                                                                                         9901
                                                                                                                                                                                    1126
                                                                                                                                                                                                                1186
                                                                                                                                                                       181
                                                                                                                                                                                                  201
                                                        101
                                                                                    121
                            81
                                          826
                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                           8 B 8
                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                ⋧
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                            qq
                                                                                                                          셤
                                                                                                                                        8 8 8
                                                                                                                                                                                 8 B
                                                                                                g &
                                                                   요
                                                                                 ò
                                                        à
                            ò
                                        셤
                                                                                                                                                                                                                   Sequence 9, Application US/10349528
; Sequence 9, Application US/10349528
; Publication NO: US200402536681
; Publication NO: US200402536681
; Publicant NEWANATHAN, Chandra
APPLICANT: RAMANATHAN, Chandra
APPLICANT: MINTIER, Gabe
TITLE OF INVENTION: USE THEREOF
TITLE OF INVENTION: USE THEREOF
TITLE OF INVENTION: UNMER: US/10/349,528
CURRENT APPLICATION NUMBER: US/10/349,528
CURRENT FILING DATE: 2003-01-22
NUMBER OF SEQ ID NOS: 35
SEQ ID NO 9
LENGTH: 2391
                                                                                                                                                                                                                                                                         Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyalaalaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle 80
                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                        ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                    GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                               949
                                     280
                                             GlyLeuAlaTyrPheAlaAlaValLeuSerWetIleGlyAspTrpLeuArgVallleSer 300
                        829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                            2391
354
10
4
0
                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-4 (1-370) x US-10-349-528-9 (1-2391)
                                                                                                                                                                                          GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                               6.27e-188
1827.00
98.91%
96.20%
                                                                                                                                                                                                                                                                                                                                                    ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    904
                                                                                                                                            1010
                                                                                                                                                                       1070
                                                                                                   301
                                                                                                                                                                                      361
                                                                                                                 950
                                                                                                                              321
                                                                                                                                                           341
                            770
                                                                       281
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
DB:
                                            261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                    ద
                                                                                                                                                                    셤
                                                                                                                                                                                  ò
                                                                                                                                        a
                                                                                                                                                           Š
                                                                                  qq
                                                                                                  ö
                                                                                                             g
                                                                                                                          ⋧
                                                      a
                                                                       ò
                8 8
                                      ઠે
```

```
APPLICANT: LAZDUNKI, MICHEL
TITLE OF INVENTION: HUMAN TREK2, A STRETCH-AND ARACHIDONIC ACID-SENSITIVE
TITLE OF INVENTION: RILUZQUE
TITLE OF INVENTION: RILUZQUE
TITLE OF INVENTION: RILUZQUE
FILE REFERENCE: 1256-R-00
CURRENT APPLICATION NUMBER: US/09/892,360
CURRENT APPLICATION NUMBER: 60/214,559
PRIOR FILING DATE: 2000-06-27
PRIOR FILING DATE: 2000-06-27
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 1614
                                                                                                                                                                                                                                                                                                                                                                                                                                    943 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTGCAGGT 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1003 GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGGTTCTGGATCCTTGTA 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                    823 GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA 882
     161 ileTyrAlaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                 883 CTCTTTGTGGCTCTGCCTGCGGTCATATTCAAACACATAGAAGGCTGGAGGCCCTGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    703 ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG
                                                                                                  LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                   763 CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                     LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                        241 AlaileTyrPheValValIleThrLeuThrThrileGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321 ValThralaGluPheLysGluThrargargArgArgLeuSerValGluIleTyraspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1183 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGAGATTTATGACAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                                                                                                                     ValSerGlnThrLyslleArgIlelleSerThrIlellePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human TREK2 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1303 gagcraacrccrreragaagacc 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09892360 Publication No. US20040101833A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (1)..(1614)
CTHER INFORMATION: ORF
US-09-892-360-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-892-360-1
                                                                                                     181
                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                            a
                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223 GTGGCGGCACCTGGTTGCTGGATCCTAAATCTGCCGGTCAGAACTCCCAAACCGAGGCTC 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVall1e 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              283 TCATTTTCCACGAAACCCACAGTGCTTCCTCCCGGGTGGAGAGTGACACGACCATTAAT 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343 GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValValLeuTyrLeuIleIle 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 463 GIGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2130
352
10
6
0
                                                                   CITY: Parelipanny
STATE: New Jersey
COUTRY: USA
ZIP: 07054
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Ploppy disk
COMPUTER: Ploppy disk
COMPUTER: PLOPPY disk
COMPUTER: PLOPPY disk
COMPUTER: PACHON DATA:
SOFTWARE: PACHON DATA:
APPLICATION NUMBER: US/08/816,011
FILNG DATE: 11-MAR-1997
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                            Products Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-655-272-4 (1-370) x US-08-816-011-46 (1-2130)
                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Matthews, Gale F.
REGISTRATION NUMBER: 32,269
REFERENCE/DOCKET NUMBER: 32,421-C2
TELECOMUNICATION INFORMATION:
TELEPHONE: 201-683-4134
TELEFAX: 201-683-4117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.3e-185
1805.00
98.37$
95.65$
                            E: American Home
One Campus Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 2130 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
CORRESPONDENCE ADDRESS:
ADDRESSEE: American
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TOPOLOGY:
US-08-816-011-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
80
```

Š 셤 è g δ 셤 ठ 셤 ઠે 셤 ò 셤 ઠે a

1182

942 260 280

1242

Oy 310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg 329 1006 ATCAAGGCCATGCGGCAGAGTCCAATGTCAGGCTGAGTTCCGGGAGACGGG 1065 1006 ATCAAGGCCCATGCGGCAGAGTCCAATGTCAGGCTCGGGAGACGGG 1065 Oy 330 ArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVal 346	US-09-852-386 195-09-862-386 195-09-862-386	Corganism: Homo mapiens Corganism: Cores Corganism: Homo mapiens Corganism: Homo mapiens Corganism: Homo mapiens Corganism: Corgani
Pred. No.: 3.37e-125 Length: 1614 Score: Percent Similarity: 78.07\$ Matches: 247 Percent Similarity: 78.07\$ Mismatches: 247 Best Local Similarity: 64.49\$ Mismatches: 67 Best Local Similarity: 78.07\$ Mismatches: 67 Best Local Similarity: 78.07\$ Mismatches: 67 Best Local Similarity: 78.07\$ Mismatches: 67 Best Local Similarity: 78.09-892-360-1 (1-1614) Oy 2 AlaalaProAspLeuLeuAspProLysSerAla		191 LysvaldluAspThrPhelleLysTrpAshTell

```
3.46e-125
1247.50
78.07%
64.49%
66.25%
US20030176342A1
                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
PEATURE:
                                                                                                                                        .. (1644)
                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
Publication No. US2C
GENERAL INFORMATION:
                                                                                                                                          (13)
                                                                                                                                 NAME/KEY: CDS
LOCATION: (13
                                                                                                                                                                    Alignment Scores:
Pred. No.:
                                                                                                                                                  US-10-332-175-1
                                                                                                                                                                                                                                                                                                                                                                 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                171
                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGCCCGCCGCCTGGACCAGCGGGCCCACTCACTGGACATGCTGTCCCCCGAG 1200
                                                                                                                       150
                                                                                                                                                                           540
                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                  210
                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                       250
                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                         ThrileGlyPheGlyAspTyrValAlaGlyGly---SerAspIleGluTyrLeuAspPhe 269
                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                     HisAlaCysValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIle 110
                                                                                                       420
                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                           900
181 GAAGGCACCTCCCAAGGGGGCTTGCAGACCGTCATGAAGTGGAAGACGGTGGTTGCCATC 240
                                  300
                 70
                                                   ProGlnGluIleSerGlnArgThrIleValIleGlnLysGlnThrPheIleAlaGln 90
                          AGTGCCTTTTTCTTTGCTGGAACTGTCATTACGACCATAGGGTATGGGAATATTGCTCCG
                                                                                                                                                                                                                              GlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAla
                                                                                                                                                                                                                                         GGTTTCTTATTGGCTGGAATTGGAACACCAACTTGGAACCATCTTTGGGAAAAGCATTGCA
                                                                                                                                                                                                                                                                            LysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                          TyrLysProValValTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                     TATAAGCCCCTAGTGTGGTTTTGGATCCTTGTTGGCCCTTGCCTACTTTGCAGCTGTCCTC
                                                             SerSerPhePhePheAlaGlyThrValIleThrThrIleGlyPheGlyAsnIleSerPro
                                                                                                                                                                                                                                                                                                    ThrilellePheileLeuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe
                                                                                                                                                                                                                                                                                                               ACCATCCTGTTCATCTTGGCCGGCTGCATTGTGTTTTGTGACGATCCCTGCTGTCATCTTT
                                                                                                                                                                                                                                                                                                                                                310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys
                 PheLeuValValValValLeuTyrLeuIleIleGlyAlaAlaValPheLysAlaLeuGluGln
                                                                                                                                                                                                                                                                  LysValGluAspThrPheIleLysTrpAsnValSerGlnThrLysIleArgIleIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |||:::
| AAGCGCTCT 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                             106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       347
                                                  71
                                                                    301
                                                                                                                                                                                                                                                601
                 21
                                   241
                                                                                     91
                                                                                                      361
                                                                                                                        111
                                                                                                                                         421
                                                                                                                                                          131
                                                                                                                                                                           481
                                                                                                                                                                                                                                                                  191
                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                     211
                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                       231
                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                            270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
US-10-3
                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                   q
                                                                                                                                     셤
                                                                                                                                                                       a
                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
셤
                 ઠે
                              g
                                             ે
                                                                                    ઠે
                                                                                                                       Š
                                                                                                                                                          $
                                                                                                                                                                                           Š
                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

US-10-332-175-1; Sequence 1, Application US/10332175

```
432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 GCAGCACCGGTGTGCCAGCCCAAGAGCGCCACTAACGGGCAACCCCCGGCTCCGGCT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136 CCGACTCCAACTCCGCCCTGTCCATTCCTCCCGAGCCACACGGGTAGCC--AGGATG 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91 HisAlaCysValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIle 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   313 CCCTTTGAGAGCAGCCAGAAGAATACCATCGCCTTGGAGAAGGCGGAATTCCTGCGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLyBGlyIleAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14 GlnAsnSerLysProArgLeuSerPheSerSerLysProThrValLeuAlaSerArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34 GluSerAspSer-----AlaIleAsnValMetLygTrpLygThrValSerThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PheLeuValValValLeuTyrLeuIleIleGlyAlaAlaValPheLysAlaLeuGluGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71 ProGlnGluIleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373 CATGLCTGTGTGAGCCCCCCAGGAGCTGGATCATCCAGCATGCTCTTGATGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111 AsnAlaGlyIleIleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgThrGluGlyGlyLysllePheCyslleIleTyrAlaLeuLeuGlyIleProLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  613 GGTTTCTTATTGGCTGGAATTGGAGCCAACTTGGAACCATCTTTGGGAAAAGCATTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             channel
                                                                                                                                                                                                                                                                                                              1644
247
52
67
17
     Ltd.
potassium (
                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-655-272-4 (1-370) x US-10-332-175-1 (1-1644)
TITLE OF INVENTION: No. US20030176342A1el pot FILE REFERENCE: Y0133PCT-666; CURENT APPLICATION NUMBER: US.10/332,175; CURENT PPLICATION NUMBER: US.10/332,175; CURENT FILING DATE: 2003-01-07; PRIOR APPLICATION NUMBER: UP 2000-396020; RILING DATE: 2000-12-26; NUMBER OF SEQ ID NOS: 6; SEQ ID NO: 6; SEQ ID NO: 6; SEQ ID NO: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AlaAlaProAspLeuLeuAspProLysSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
```

```
2 AlaAlaProAspLeuLeuAspProLysSerAla-
                                                                                                                                                                                                                                                                                                                            4.68e-125
1247.50
78.07%
64.49%
66.25%
                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                       .. (1689)
                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                              , NAME/KEY: CDS
, LOCATION: (61)
US-10-262-511-105
                                                                                                                                                                                                                                                                                                                        Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                               1033 ATCAAGGCCCATCCGGCAGAGTGGAAGGCCAATGTCACGGCTGAGTTCCGGGAGACACGG 1092
                                                                                                                                                                                                                                   346
                                                                                                                                                       SerMet11eGlyAspTrpLeuArgVal11eSerLysThrLysGluGluValGlyGlu 309
                                                                                                                                                                                             310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg 329
                                                                                                                                                                                                                                                                        347 ---LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365
                                                                          ThrileglyPheGlyAspTyrValAlaGlyGly---SerAspileGluTyrLeuAspPhe 269
                                                                                              912
                                                                                                                  289
                                                                                                                            250
                                                        852
           LysHisileGluGlyTrpSerAlaLeuAspAlaileTyrPheValValIleThrLeuThr
                                                                                       TyriysprovalvalTrpPheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeu
                                                                                                                                                                                                                                   330 ArgargieuSerValGluileTyrAspLysPheGlnArgAlaThrSerVal-----
                                               ThrilellephelleleuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Berghs, Constance
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME
FILE REFERENCE: 21402-462C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/262,511
                                                                                                                                                                                                                                                                                                                                                                         Guo, Xiaojia (Sasha)
Patturajan, Meera
Spytek, Kimberly A.
Edinger, Shlomit R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rastelli, Inca
Stone, David J.
Pena, Carol E. A.
Shenoy, Sureeh G.
Shimkets, Richard A.
Rothenberg, Mark E.
Leach, Mark E.
Agee, Michele L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bllerman, Karen
Malyankar, Uriel M.
Ort, Tatiana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zerhusen, Bryan D.
Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Charles E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Catterton, Elina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gorman, Linda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ji, Weizhen
Miller, Charl
                                                                                                                                                                                                                                                                                                                                        1213 AAGCGCTCT 1221
                                                                                                                                                                                                                                                                                                                    MetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhong, Mei
                                                                                                                                                                                                                                                                                                                        366
                                                                                                                        270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT
                                                              793
                                                                                  251
                                                                                                     853
                                                                                                                                                               290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT
                                           231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                               8
                                                                                                                                                                               g
                                                                                                                                                                                                    ò
                                                                                                 g
                                                                                                                         ઠે
                                                                                                                                       g
                                                            원
                                                                                  à
                       셤
                                            ò
```

```
HisalaCysValasnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIle 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnAlagiyIleIleProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGly 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     184 CCGACTCCAACTCCGGGCCTGTCCATTTCCTCCCGAGCCACACAGGGAAGCC---AGGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GAAGGCACCTCCCAAGGGGCTTGCAGACCGTCATGAAGTGGAAGACGGTGGTTGCCATC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71 ProgladiulleSerglnArgThrThrileValIleGlnLysGlnThrPheIleAlaGln 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 AATGCGGGGGTCAGTCCAATAGGAAACTCTTCCAACAACAGCAGCCACTGGGACCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 phereuvalvalvalreutyrieurleriegiyalaalavalpherysalareuglugin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14 GlnAsnSerLysProArgLeuSerPheSerSerLysProThrValLeuAlaSerArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34 GluSerAspSer-----AlaIleAsnValMetLysTrpLysThrValSerThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT FILING DATE: 2003-05-28

PRIOR APPLICATION NUMBER: 60/326,483

PRIOR FILING DATE: 2001-10-02

PRIOR FILING DATE: 2001-0-09

PRIOR FILING DATE: 2001-0-09

PRIOR PILING DATE: 2001-0-09

PRIOR PILING DATE: 2001-0-09

PRIOR PILING DATE: 2002-05-17

PRIOR PILING DATE: 2002-05-07

PRIOR APPLICATION NUMBER: 60/328,029

PRIOR PILING DATE: 2002-05-09

PRIOR PILING DATE: 2002-05-09

PRIOR PILING DATE: 2002-05-09

PRIOR PILING DATE: 2002-05-09

PRIOR PILING DATE: 2001-10-09

PRIOR PILING DATE: 2001-10-09

PRIOR PILING DATE: 2001-0-09

PRIOR PILING DATE: 2001-0-0-09

PRIOR DATE: 2001-0-0-09

PRIOR DATE: 2001-0-0-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2028
247
52
67
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-655-272-4 (1-370) x US-10-262-511-105 (1-2028)
```

33

70

20

		.25% Indels: Gaps:	US-09-655-272-4 (1-370) x US-09-729-920-1 (1-2065)	2 AlaAlaProAspLeuLeuAspProLysSerAlaAla 13	Ser	CTGTCCATTTCCTCCGAGCCACAGTGGTAGCCA	Oy 34 GluSerAspSerAlaileAsnValMetLysTrpLysThrValSerThrIle 50	51 PheLeuValValLeuTyrLeuIleIleGlyAlaAlaValPheLy8AlaLeuGluGln 70	674 T	Oy 71 ProGluGluleSerGlnArgThrThrileValileGlnLysGlnThrPheileAlaGln 90	91 HisAlaCysValAsnSerThrilliniaspoluLeulaggluichteile	Db 794 CATGTCTGTGTGAGCCCCCAGGAGCTTGATCCAGGATGCTTGATCCTGAC 853	111 Asnaladly1le1leProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGly	854 AATGCGGGAGTCAGTCCAATAGGAAACTCTTCCAACAACAGCACCAGCCAG	UY 131 SETSERNBENGALAGIYUNTYALILBINTINILLBEGIYABNILBEGERIO 150	151 ArgThrGluGlyGlyLys1lePheCys1leIleTyrAlaLeuLeuGlylleProLeuPhe	974 AGCACTGAAGGAGGCAAAATCTTTTGTATTTTATATGCCATCTTTGGAATTCCACTCTTT 171 Clubat out analacticitaticitatatatatatatatatatatatata	olymerculentativatoryyaspoinneuryrintierneuryrised y termana 1 	Qy 191 LysValGluAspThrPheIleLysTrpAsnValSerGlnThrLysIleArgIleIleSer 210	211 ThrileilePheileLeuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe	250	1214 AAGTACATCGAGGGCTGGACGGCCTTGGAGTCCATTTACTTTGTGGTCGTCACTCTGACC 1	Qy 251 ThrileGlyPheGlyBapTyrValAlaGlyGlySerAsplleGluTyrLeuAspPhe 269	Db 1274 ACGGGGCTTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	270 TyrLysProValvalTrpPhcTrpIleLeuValGlyLeuAlaTyrPhcAlaAlaValLeu 2	1334 TATAAGCCCCTAGTGTGGTTTTGGATCCTTGTTGGCCTTGCCTACTTTGCAGCTGTCCTC	Qy 290 SerMetIlleGlyAapTrpLeuArgValIleSerLysIlysGluGluValGlyGlu 309	310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg 32	
ノーレン・コング 日本 そんり アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・カー・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・	541 AGIGCCIIIIICIIIGCIGGAACIGICAIIACGACCAIAGGGIAIGGGAAIAIIGCICCG	Oy 151 ArgThrGluGlyGlyLys1lePheCys1le1leTyrAlaLeuLeuGlyIleProLeuPhe 170	111 Clubbet and and add and about the and a part of the contraction of		191 LysValGluAspThrPheIleLysTrpAsnValSerGlnThrLysIleArgIleIleSer	⊢ ⊢	:::	Oy 231 LysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThr 250	251 ThrileGlyPheGlyAspTyrValalaGlyGlySerAspIleGluTyrLeuAspPhe	901 ACGGGGGTTTGGTGGCGGGGGGAAACGCTGGCATCAATTATCGGGAGTGG	270 TyriysProValValTrpPheTrplleLeuValGlyLeuAlaTyrPheAlaAlaValLeu	961 TATARGCCCCTAGICIOSTITITGGAICCTIGITGGCCTTGCCTACTTTGCAGCTGTCCTC	OY 290 SERMECLIADELYAPSITPLEMARGVALILESSETLYBELYSTRILYBGLUGLUVALGIYGIN 309	Oy 310 PheArgAlaHisAlaAlaGluTrThrAlaAsnValThrAlaGluPheLysGluThrArg 329	Db 1081 ATCAAGGCCCATGCGGCAGAGTGGAAGGCCAATGTCAGGCTGAGTTCCGGGAGACACGG 1140	Oy 330 ArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVal 346	Qy 347LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365	1201 G	Oy 366 MetArgThr 368 :: Db 1261 AAGCGCTCT 1269	RESULT 10 US-09-729-920-1 Sequence 1, Application US/09729920	; FACENT NO. USZUJZIJAI ; GENERAL INFORMATION: ; ADDIJCANT. GTRGIFR. Karl et al	; TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS, ; TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,	; FILE OF INVENTION: AND USES THEREOF; FILE REPERBNCE: CLOODSSE	; CURRENT FILING DATE: 2000-12-06	; NOWTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 1	; LENGTH: 2065 ; TYPE: DNA	; ORGANISM: Human US-09-729-920-1	lignment Scores: 4.8e-125 Length	1247.50 Matches:

us-09-655-272-4.rnpb

유

g

ò

ద ò

ઠે

```
Sequence 432, Application US/10302172

Sequence 432, Application WS/10302172

Publication NO. US20040053250A1

GENERAL INFORMATION:

APPLICANT: Tang, Y. Tom

APPLICANT: Tang, Y. Tom

APPLICANT: Dramanc, Radoje T.

APPLICANT: Dramanc, Radoje T.

TITLE OF INVENTION: No. US20040053250A1e1 Arginine-rich Protein-like Nucleic Acids and TITLE OF INVENTION: POlypeptides

TITLE OF INVENTION: POlypeptides

FILIE REFERENCE: 803 1CNCP

CURRENT APPLICATION NUMBER: US/10/302,172

CURRENT APPLICATION NUMBER: US 10/225,251

PRIOR APPLICATION NUMBER: US 09/799,451

SPRIOR APPLICATION NUMBER: US 09/799,451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1454 ATCAAGGCCCATGCGGCAGAGTGGAAGGCCAATGTCACGGCTGAGTTCCGGGAGACACGG 1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1213
                                                                                                                                                                                                                                                                                                                                                                                           1333
                                                                                                                                                                                                     1153
                                                                                                                                                                                                                                                                                                               ---LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365
                                                                           1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              346
                                                                                                                         SerMetileGlyAspTrpLeuArgValileSerLysLysThrLysGluGluValGlyGlu 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329
                                                                                                                                                                                                                                                                                                250
                                                                                                                                                                                                                                   230
                                                                                                                                                                        210
                                                                                                                                                                                                                                                                                                                                                                             PheArgalaHisAlaalaGluTrpThralaAsnValThralaGluPheLysGluThrArg
                                                                                                                                                                                                                                                                                                                                                                                                                        TyriysProValValTrpPheTrplleLeuValGlyLeuAlaTyrPheAlaAlaValLeu
                                                                                                                                                                                                                                                                                                                                                           ThrileglyPheclyAspTyrValalaclyGlyGly---SeraspileGluTyrLeuAspPhe
                                                                                                                                                                                                                                   ThrilellePheileLeuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe
                                                                                                                                                                                                                                                     glyphereureualaglyvalglyaspglnreuglyfhrilepheglytysglyileAla
                                                                                                                                                                        LysvalGluAspThrPheIleLysTrpAsnValSerGlnThrLysIleArgIleIleSer
                                                                                                                                                                                        :::|||||||
agagtggagaaggtctttcgaaaaaagcaagtgagtcagaccaagatcgggtcatctca
                                                                                                                                                                                                                                                                                             LygHis ileGluGlyTrpSerAlaLeuAspAlaIleTyrPhevalValIleThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |||:::
1634 AAGCGCTCT 1642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                366 MetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      347
                                                                                                                                                                                                               1094
                                                                                                                                                                                                                                                                                                                                                                                                                                  270
                                                                                                                                                                                                                                                                            1154
                                                                                                                                                                                                                                                                                                                                                                       251
                                                                                                                     171
                                                                                                                                                                                  191
                                                                                                                                                                                                                                              211
                                                                                                                                                                                                                                                                                                           231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                            ,
음 상 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                     8
                                                                                                                                            g
                                                                                                                                                                         ò
                                                                                                                                                                                                            유
                                                                                                                                                                                                                                             ð
                                                         ò
                                                                                  g
                                                                                                                                                                                                                                                       Sequence 1. Application US/10887932
| Sequence 1. Application US/10887932
| Publication No. US20040247595A1
| GENERAL INFORMATION:
| APPLICANT: GUEGLER, Karl et al. |
| APPLICANT: GUEGLER, Karl et al. |
| APPLICANT: GUEGLER, Karl et al. |
| TITLE OF INVENTION: INCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS, TITLE OF INVENTION: AND USES THEREOF TITLE OF INVENTION: AND USES THEREOF CURRENT APPLICATION NUMBER: US/10/887,932 CURRENT PILING DATE: 2004-07-12
| CURRENT PILING DATE: 2004-07-12
| SOFTWARE: FastSEQ for Windows Version 4.0 |
| SEQ ID NO 1 |
| LENGTH 2065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnAlaGly11e11eProLeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGly 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HisalaCysValAsnSerThrGluLeuAspGluLeulleGlnGlnIleValAlaAla1le 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerSerPhePhePheAlaGlyThrValIleThrThrIleGlyPheGlyAsnIleSerPro 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           733
                                                                                                                           1574 GAGGGCCGGCGGCCTGGACCAGGGGCCCACTCACTGGACATGCTGTGTCCCCCGAG 1633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557 CCGACTCCAACTCCGCCCTGTCCATTTCTCTCCCGAGCCACAGTGGTAGCC---AGGATG 613
                                                                 1454 ATCAAGGCCCATGCGGCAGAGTGGAAGGCCAATGTCACGGCTGAGTTCCGGGAGACACGG 1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gluserAspser-----AlaileAsnValMetLysTrpLysThrValSerThrIle 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                         ---LysargLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14 GlnAsnSerLysProArgLeuSerPheSerSerLysProThrValLeuAlaSerArgVal 33
                                            ArgargieuservalglulleTyrasplysPheglnArgalaThrServal----- 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PheLeuvalvalvalleuTyrLeuIleIleGlyAlaAlavalPheLysAlaLeuGluGln
|||:::||||||||:::|||||||:::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProGlnGlulleSerGlnArgThrThrileVallleGlnLysGlnThrPhelleAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGGCACCTCCCAAGGGGGCTTGCAGACCGTCATGAAGTGGAAGACGGTGGTTGCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATGCGGGAGTCAGTCCAATAGGAAACTCTTCCAACAACAGCGGCCCACTGGGACCTCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2065
247
52
67
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-655-272-4 (1-370) x US-10-887-932-1 (1-2065)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 AlaAlaProAspLeuLeuAspProLysSerAla-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.8e-125
1247.50
78.07%
64.49%
66.25%
                                                                                                                                                                                                |||:::
|634 AAGCGCTCT 1642
                                                                                                                                                                             366 MetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Human
US-10-887-932-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                                                                                                                     347
                                                        330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             No.:
```

셤 ò

g ð 원 ð 셤 ò g à

엄 à

8 g ઠે

```
1477
  347 --- LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCys 365
                                                                                                                   1418 AGTATGGGAGATTGGCTACGGGTTCTGTCCAAAAAGACAAAAAGAAGAGGTGAAA
                                                                                        290 SerMetileGlyAspTrpLeuArgValileSerLysLysThrLysGluGluValGlyGlu
                                                                                                                                                                                 310 PheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLysGluThrArg
                                                                                                                                                                                                                                                                             330 ArgargieuServalGlulleTyrAspiysPheGlnArgAlaThrSerVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-44/-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

10-32-4-7

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US20040053258A1 7472728CB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.33e-122
1220.00
76.74%
63.05%
64.79%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||:::
1658 AAGCGCTCT 1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 366 MetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
Pred. No.:
                                 셤
                                                                                        8
                                                                                                                            용
                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          998 AGCACTGAAGGAGGCAAAATCTTTTGTATTTTATATGCCATCTTTGGAATTCCACTCTTT 1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111 AsnAlaGly1leIleProLeuGlyAsnSerAsnGlnValSerHisTrpAspLeuGly 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   210
                                                                                                                                                                                                                                                                                                                                                                                                                        TITGIGGITGIGGICTACCITGICACTIGGGGGTCTTGICITCCGGGCATIGGAGCAG 757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                581 CCGACTCCAACTCCGGCCTGTCCATTTCCTCCCGAGCCACAGTGGTAGCC---AGGATG 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGGCACCTCCCAAGGGGCTTGCAGCCGTCATGAAGTGGAAGACGGTGGTTGCCATC 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisAlaCysValAsnSerThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIle 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrileGlyPheGlyAspTyrValAlaGlyGly---SerAspIleGluTyrLeuAspPhe 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluSerAspSer-----AlaIleAsnValMetLysTrpLysThrValSerThrIle 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheLeuValValValValLeuTyrLeuIleIleGlyAlaAlaValPheLysAlaLeuGluGln 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProGlnGluIleSerGlnArgThrThrIleValIleGlnLysGlnThrPheIleAlaGln 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyPheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysValGluAspThrPheileLysTrpAsnValSerGlnThrLysIleArgIleIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrileilePheileLeuPheGlyCysValLeuPheValAlaLeuProAlaValilePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14 GlnAsnSerLysProArgleuSerPheSerSerLysProThrValLeuAlaSerArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheValValIleThrLeuThr
                                                                                                                                                                               2730
247
52
67
17
                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                              US-09-655-272-4 (1-370) x US-10-302-172-432 (1-2730)
                                                                                                                                                                                                                                                                                                                                                                                           AlaAlaProAspLeuLeuAspProLysSerAla---
                                                                                                                                                                                                                                                                             Indels:
                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                 7.19e-125
1247.50
78.07%
64.49%
66.25%
                                      ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (473)..(2086)
US-10-302-172-432
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                            Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    231
                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                    Pred. No.:
```

a

ઠે g g

g ò

δ

ઠે

g

a

ò

g

ਨੇ

셤

ò

원

ઠ

셤

ઠે

g

ò

δ

ò 엄 δ 요 ò

```
Sequence 1, Application US/10243035
; Sequence 1, Application World 102030049697A1
; Publication No. US20030049697A1
; GENERAL INFORMATION: MICHEL
; APPLICANT: LESDUNSKI, MICHEL
; APPLICANT: LESDUNSKI, FRANCOIS
; TITLE OF INVENTION: NEW FAMILY OF MECHANOSENSITIVE HUMAN POTASSIUM CHANNELS
; TITLE OF INVENTION: NEW FAMILY OF POLYUNSATURATED FAITY ACIDS AND THEIR USE
; FILE REFRENCE: 1317-02
; CURRENT FILING ATTE: 2002-09-13
; VURRENT FILING ATTE: 2002-09-13
; SOFTWARE: PATENTIN VET: 2.1
; SSOFTWARE: PATENTIN VET: 2.1
; SSOFTWARE: PATENTIN VET: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GAGGTCCGAGAGAGTTCCTGAGGGCCCATCCGTGTGAGCGACCAGGAGCTGGGCTC 180
|||||||::::::::::
181 CTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGGTGCGGGACCCAGAAACCAACTCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                   62 AlaAlaValPheLysAlaLeuGluGluGlnProGlnGluIleSerGlnArgThrThr11eVal
                                                                                                                                                                                                                                                                                                                                                                                                                              82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeulleGlnGln1leValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSerSer
                                                                                                                                                                                                                                                                                                                                                                                 --- LysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu
                                                                                                                                                                                                                                                                                                         1182
145
60
77
2
                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                     US-09-655-272-4 (1-370) x US-10-243-035-1 (1-1182)
                                                                        |||:::|||
1732 CTGTCCCCGAGAAGCGCTCT 1752
                                                              LeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                           1.95e-76
797.00
72.18%
51.06%
                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (1)..(1179)
US-10-243-035-1
                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                346 Val-----
                                                                                                                                                                                                                                                                                                       Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                      LENGTH: 1182
                                                                                                   RESULT 14
US-10-243-035-1
                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            102
                                                                 362
                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                 . No. .
                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                               g
                                                                  ò
                                                                              ď
                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1551
                                                                                                                                                                                                                                                                                                                                  1131
                                                                                                                                                                                                                                                                                                                                                                                            286 AlaAlaValLeuSerWetlledlyAspTrpLeuArgVallleSerLysEysThrLysGlu 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluvalGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPhe 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysGluThrArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSer 345
                                                                                                                                                                                                                                                                                                                                                            ThrileGlyPheGlyAspTyrValAla-------GlyGlySerAspIleGlu 265
                                                                                                                                                                                                                                                                                                                                                                                    210
                                                                                                                                                                                                                                                                                                                                                                                                                   ThrilellepheilebeupheGlyCysValLeupheValAlaLeuproAlaValIlephe 230
                                                                                                                                                                                                                                                        GlypheLeuLeuAlaGlyValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAla 190
                                                                                                                                                                                                                                                                                 SerSerPhePhePheAlaGlyThrVall1eThrThrIleGlyPheGlyAgnIleSerPro 150
                                                                                                                                                                                                               HisAlaCysValAsnSerThrGluLeuAspGluLeuileGlnGlnIleValAlaAlaIle 110
                                                                                                                                                                                                                                               AsnalagiyılelleproLeuglyAsnSerSerAsnGlnValSerHisTrpAspLeuGly 130
                                                                                                                                                       894
                                                                                                                                                                                                                        774
                                                                                           714
                                                           657
                                                                                                                                                                              proglnGlulleSerGlnArgThrThrIleVallleGlnLysGlnThrPhelleAlaGln 90
                                                                                                            20
                                                                                                                                             70
                                                                            33
                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysvalgluhspThrPhelleLysTrpAsnValSerGlnThrLyslleArgllelleSer
                                                                           GluserAspser-----AlaileAsnValMetLysTrpLysThrValSerThrIle
                                                                                                                      pheleuvalvalvalualteuTyrLeulleIleGlyAlaAlavalPheLysAlaLeuGluGln
                                                                                                                                                                                        ø
                           x US-10-332-447-42 (1-2820)
                                             AlaAlaProAspLeuLeuAspProLysSerAla----
                               US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                                                                                                                                           1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                            231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                                                        1015
                                                                                                                                                                                                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                       955
                                                                                                                                                                                                                                                                                        131
                                                                                                                                                                                                                                                                                                                                                       171
                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                     111
                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                     895
                                                                                 14
                                                                                                  658
                                                                                                                                   715
                                                                                                                                                    21
                                                                                                                                                                    775
                                                                                                                                                                                     71
                                                                                                                                                                                                     835
                                                                                                                  34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          С
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ⋩
                                                                                                                                                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                 $ 8 $
                                                                                                                                                                                                                                                                   원
장
원
                                                                                                                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                유
장
유
                                                                                                                              g &
                                                                              \frac{4}{5}
                                                                                                                  ò
                                                               셤
                                                  8
```

240

101

9 81

139

159 438 179 498 199 558 219 618 239 678 259 738

```
82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      739 GÉCECGEACCCCAGGCAGGACTCCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATCCTG 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAla 319
                                                               ||||||||:::::::::: ||||||::::
                                                                                                                                                                                                                    439 ATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTCGGGGGC
                                                                                                                                                                  679 GAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTGGGGCTTTGGCGACTATGTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSerSer
                                                                                                  122 AsnGlnValSerHis-----TrpAspLeuGlySerSerPhePheAlaGlyThrVal
                                                                                                                                                   140 ileThrThrileGlyPheGlyAsnIleSerProArgThrGluGlyGlyLyBIlePheCys
                                                                                                                                                                                                       160 IlelleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAsp
                                                                                                                                                                                                                                                       180 GlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrp
                                                                                                                                                                                                                                                                                                         200 AsnValSerGlnThrLyslleArgllelleSerThrllellePhelleLeuPheGlyCys
                                                                                                                                                                                                                                                                                                                        220 ValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeu
                                                                                                                                                                                                                                                                                                                                                                          240 AspAlaIleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                               260 GlyGlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280 ValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3, 2005, 06:54:19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919 ACAGTGACAGCG 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320 AsnvalThrAla 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: February
Job time: 663.464 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                 102
                     셤
                                                  8 8
                                                                                                 ò
                                                                                                                        셤
                                                                                                                                            ò
                                                                                                                                                                       셤
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                  219
                                                                          540
                                                                                                   239
                                                                                                                                                    259
                                                                                                                                                                  279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                               :::||||||||||||||||||||||:::||||||||:::
CTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAACTGGCTGCGAGTAGTG 780
                                                                                                                                                                                                                                                                                                        SerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAla 319
                                                                                                                                                                                                                                                                                                                        ValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIle 299
                                               :::||||||:::
GGGCTGGGCTCCCTGCGCCATGGCATCGGTCACTTGAAGCCATCTTCTTGAAGTGG
                                                                                                 ValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeu
                                                                                                                                               AspAlaileTyrPheValValIleThrLeuThrLhrlleGlyPheGlyAspTyrValAla
GlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrp
                                                                                                                                                                                                      GlyGlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Application US/09828035
Sequence 3, Application US/09828035
Patent No. US20020034781A1
GENERAL INFORMATION:
APPLICANT: Glucksmann, Maria A.
TITLE OF INVENTION: 12303, A NOVEL HUMAN TWIK MOLECULE AND USES THEREOF
FILE REFERENCE: MNI-12
CURRENT FILING DATE: 2001-04-06
PRIOR FILING DATE: 2000-04-06
PRIOR FILING DATE: 2000-04-07
NUMBER OF SEQ ID NOS: 3
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1257
145
60
77
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-655-272-4 (1-370) x US-09-828-035-3 (1-1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.13e-76
797.00
72.18%
51.06%
                                                                                                                                                                                                                                                                                                                                                          320 AsnValThrAla 323
                                                                                                                                                                                                                                                                                                                                                                                    841 ACAGTGACAGCG 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1) .. (1257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 3
LENGTH: 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1
US-09-828-035-3
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
US-09-828-035-3
                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                         421
                                                                                                  220
                                                                                                                           541
                                                                                                                                                    240
                                                                                                                                                                            601
                                                                                                                                                                                                       260
                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  139
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.:
                                                                                                                                                                      g
                  g
                                      8 8
                                                                                          8 6
                                                                                                                                           ઠે
                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
Š
                                                                                                                                                                                                                                                                                                        ò
```

THIS PAGE LEFT BLAM

```
% prodata 1, pna/US101A COMB. seq: % prodata 1, pna/US101A COMB. seq: % prodata 1, pna/US101B COMB. seq: % prodata 1, pna/US101B COMB. seq: % prodata 1, pna/US102B COMB. seq: % prodata 1, pna/US103B COMB. seq: % prodata 1, pna/US105B COMB. seq: % prodata 1, pna/US107B COMB. seq: % pna/US107B pna/US107B COMB. seq: % pna/US107B pna/US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /ptodata/1/pna/US099D_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /ptodata/1/pna/US6016_COMB.seq:'/ptodata/1/pna/US6017_COMB.seq:'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /ptodata/1/pna/US6018_COMB.seg:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /cgn2_6/ptodata/1/pna/US6035_COMB.seq
                                                                                                                                                                       /ptodata/1/pna/US098A_COMB.seq:
/pcodata/1/pna/US098B_COMB.seq:
/ptodata/1/pna/US098C_COMB.seq:
/ptodata/1/pna/US098C_COMB.seq:
/ptodata/1/pna/US098D_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'ptodata/1/pna/US6020_COMB.seq:
'ptodata/1/pna/US6021_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prodata/1/pna/US099E_COMB.seq:
prodata/1/pna/US099F_COMB.seq:
prodata/1/pna/US099G_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /ptodata/1/pna/US6009_COMB.seq:
/ptodata/1/pna/US6010_COMB.seq:
/ptodata/1/pna/US6011_COMB.seq:
                                                                             /ptodata/1/pna/US097A_COMB.seq:
/ptodata/1/pna/US097B_COMB.seq:
                                                                                                                                                                                                                                                                                                                                               ptodata/1/pna/US099A_COMB.seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /ptodata/1/pna/US100A_COMB.seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ptodata/1/pna/US108B_COMB.seq
ptodata/1/pna/US108DA_COMB.seq
ptodata/1/pna/US6000_COMB.seq:
ptodata/1/pna/US6001_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ptodata/1/pna/US6002_COMB.seq:
ptodata/1/pna/US6003_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ptodata/1/pna/US6006_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /ptodata/1/pna/US6007_COMB.seq:
/ptodata/1/pna/US6008_COMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /ptodata/1/pna/US107D_COMB.seq
/ptodata/1/pna/US108A_COMB.seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ptodata/1/pna/US6023A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ptodata/1/pna/US6034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ptodata/1/pna/US6015-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ptodata/1/pna/US6023B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /ptodata/1/pna/US6013
/ptodata/1/pna/US6014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ptodata/1/pna/US6026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ptodata/1/pna/US6004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ptodata/1/pna/US6005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ptodata/1/pna/US6012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pna/US6029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ptodata/1/
                                                                                                                                                                                                                                                                                                                                                                                                                                         ptodata/1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ptodata/1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ptodata/1/
Company (Company (Com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6,
/cgn2_6,
/cgn2_6,
/cgn2_6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / cgn2 / 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Command line parameters:
-MODBL=frame+ p2n.model -DEV=xlh
-Q=/cgn2 1/USPTO_spool/US09655272/runat_02022005_141715_6784/app_query.fasta_1.1102
-Q=/cgn2 1/USPTO_spool/US09655272/runat_02022005_141715_6784/app_query.fasta_1.1102
-Q=/cgn2 1/USPTO_spool/US09655272/runat_0202005_141715_6784/app_query.fasta_1.1102
-LOOPEXT=0 -UNITS=b1rs_-STRAT=1 -END=-1 -MATRIX=D10sum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR SCORE=-pct -THR MAX=100 -THR MINS 0 -ALIGN=15
-LOOPEXT=0 -UNITS=b1rs_-STRAT=1 -END=-1 -MATRIX=500-0 -THR MINS 0 -ALIGN=15
-LOOPEXT=0 -UNITS=b1rs_-STRAT=200-0 -NITILEN=0 -NITILEN=0 -NITILEN=200000000
-USER=US0965572_@CGN 1 1 5523 @runat_02022005_141715_6784 -NCPU=6 -ICPU=3
-NO MAAP -LARGEQUERY -NEG SCORES=0 -NAIT -DSPBEDCK=-100 -LONGLOG
-FGAPOR=10 -WARN TIRROUT=30 -THREADS=1 -XGAPOP=10 -XGAPOR=10 - XGAPOR=6
-FGAPOR=17 -YGAPOP=10 -YGAPOR=0 - DELDEXT=7
                                                                                                                                                                                                                                                                 ; Search time 4470.83 Seconds
(without alignments)
3355.931 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88617144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | | Cgn2 6/ptodata/1/pna/PCTUS1_COMB.seq:*
| Cgn2 6/ptodata/1/pna/PCTUS2_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US06_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US08_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US08_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US082_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US092_COMB.seq:*
| Cgn2 6/ptodata/1/pna/US095_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/pna/US096C_COMB.seg
                                    GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44308572 segs, 20275418765 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                     2005, 22:13:21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , Fgapext
, Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , Xgapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ygapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-655-272-4
                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Xgapop 10.0
Ygapop 10.0
Fgapop 6.0
Delop 6.0
                                                                                                                                                                                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jatabase
                                                                                                                                                                                                                                                                             Run on:
```

COMB. seq:

COMB. sed

COMB. sed

COMB. sed

40	4 43	44	45					RESULT	18-60-SD	; Segue	; GENER	, APPL	; APPL	, TITL	, FILE	; CURR	, CURR	, PRIO	; PRIO	, PRIO	PRIO	. pRIO
/cgn2_6/ptodata/1/pna/US6036_COMB.seq:* /cgn2_6/ptodata/1/pna/US6037_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6038_COMB.seq:* /cgn2_6/ptodata/1/pna/US6039_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6040_COMB.seg:*	/cgn2_6/ptodata/1/pna/US6041_COMB.seg:*	/cgn2_6/ptodata/1/pna/US6042_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6043_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6044_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6045_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6046_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6047_COMB.seg:*	/cgn2_6/ptodata/1/pna/US6048_COMB.seg:*	/cgn2_6/ptodata/1/pna/US6049_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6050_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6051_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6052_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6053_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6054_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6055_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6056_COMB.seq:*	/cgn2_6/ptodata/1/pna/US6057_COMB.seg:*	/cgn2_6/ptodata/1/pna/US6058_COMB.seg:*	/can2_6/ptodata/1/pna/US6059_COMB.seq:*	
102:	104:	106:	107:	108:	109:	110:	111:	112:	113:	114:	115:	116:	117:	118:	119:	120:	121:	122:	123:	124:	125:	

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

distribution.	
score	
of the total	DOTORMANTE
the	NAT TO
oŧ	
by analysis	
þ	
derived	
and is	

<u>-</u>																																	_							
	Description		37,	ω,		1,	Sequence 1, Appli	Sequence 35, Appl	Sequence 82, Appl	Sequence 82, Appl	Sequence 27467, A	876, 7	3496	se 3496,		σ,	46,	46	46,	46,	46,	46,	46,	46,	61,	61,	62,		64,	64,	63,	63, 2	346	43	Sequence 439, App	Sequence 70, Appl	Seguence 3874, Ap	Sequence 3874, Ap		Sequence 12647, A
	ath DB ID	34 US-09-828	45	22	22	34	44		47		48	110 US-60-443-566	111 US-60-455-444-34	112	2 P	51 US-10-349-528	13	13		13 US-08-816-011E-4	13 US-08-816-011F-4	13 US-08-816-011G-4	22	55	US-09-503	22	22	0 22 US-09-503-849D-6	22 US-09-503-849B-6	22 US-09-503-849D-6	22	2130 22 US-09-503-849D-63	54 US-10-473-305-34	61 US-10-760-320A-43	19	2 P	47 U	102	US-10-144-771-12647	126 102 US-60-360-207-12647
\$ Query	Score Match Length	99.3 1	99.3	0.66	7.3	97.3	97.3	_	97.3	7.3	97.1	9 97.1	7.1	97.1	97.0	97.0	95.9	95.9	95.9	95.9	95.9	6:36	95.9	95.9	92.6	95.6	92.6	92.6	95.4	95.4	95.4	95.4	2.6	84.4	84.4	1 76.8	5 72.5	55 72.5	'n.	. 2 99 5
Result	No.	1	7	Ю	4	ß	9	7	80	σı	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31					36			

Sequence 1, Appli Sequence 34, Appl Sequence 34, Appl Sequence 1, Appli Sequence 470, App				erLysProArgLeu 20 CCAAACCGAGGCTC 543		.euTyrLeullelle 60 :rcTACCTGATCATC 663		erThrGluLeuAsp 100 	roLeuGlyAsnSer 120 :ccrrAGGAAACAGC 843		ysilePheCysile 160
99-892-360-1 SS01-14965-34 99-852-386-34 10-332-175-1 JS02-39555A-470	ALIGNMENTS 6 7828,746 36,080 0570.3 135.1	Length: 1994 Matches: 368 Conservative: 0 Mismatches: 0 Indels: 0 Gaps: 0	46-5 (1-1994)	MetalaalaproaspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu 	SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 	ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle 	GlyalaalaValpheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle	ValleGintysGinThrPheIleAlaGinHisAlaCysValAsnSerThrGluLeuAsp 	GluLeulleGinGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 	erAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAlaGlyThrVallle 	$\tt ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLySlPheGysIlePheCysIleDheC$
.3 1614 37 US-09-89 .3 1632 1 PCT-US01- .3 1632 35 US-09-85 .3 1644 51 US-10-33 .3 1870 2 PCT-US02- .3 1870 2 PCT-US04-	ows compount Chapman COMPOUN 1: US/09 1: US/09 1	3.1e-197 1870.00 100.00% .ty: 100.00% 34	370) x US-09-828-7	.aalaProAspLeuLeuAsp 	eSerSerLysProThrVa] CTCTTCAAACCCACCGT(ttivsTrpivsThrValSe: GAAATGGAAGACAGTCTC	aAlavalPheLysAlaLet recessarare	eGlnLysGlnThrPhelle	ulleginginileValAla 	nGlnValSerHisTrpAsj \TCAAGTTAGTCACTGGGA	${ m irIleGlyPheGlyAsnIle}$
40 1247.5 66 41 1247.5 66 42 1247.5 66 43 1247.5 66 44 1247.5 66 45 1247.5 66	SULT 1 Sequence 5, Application US/ Sequence 5, Application US/ APPLICANT: Holen James Mead APPLICANT: Holen James Mead APPLICANT: Conrad Gerald TITLE OF INVENTON: NOVEL FILE REFERENCE: GP-30011-D CURRENT APPLICATION NUMBER: PRIOR FILING DATE: 1999-01 PRIOR FILING DATE: 1998-01 PRIOR FILING DATE: 1998-01 PRIOR PRIOR FILING DATE: 1998-10 PRIOR APPLICATION NUMBER: PRIOR PRIOR FILING DATE: 1998-10 PRIOR APPLICATION NUMBER: PRIOR PRIOR FILING DATE: 1998-10 PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1998-10 PRIOR FILING DATE: 1998-	ment Scores: No.: in the Similarity: Local Similarity: Match:	19-655-272-4 (1-	1 Metal 484 ATGGC	21 SerPh 544 TCATT	41 ValMe 604 GTTAT	61 GlyAl 	81	101 GluLe 784 GAACT	121 SerAs 844 TCCAA	₽
	RESULT US-09-	Alignm Pred. Score: Percen Best L Query DB:	ns-o	දි දි	% ପ୍ର	ò a	ð f	6 6	yy Db	oy Oy	8

1143 1203 1263 1323 220 260 280 340 100 160 180 200 240 GluLeuileGlnGlnileValalaalaileAsnalaGlyileileProLeuGlyAsnSer 120 140 300 603 723 783 843 903 963 663 40 9 80 ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp GITAIGAAAIGGAAGACAGICICCACGAITTICCIGGIGGICGICCICTACCIGAICAIC GGAGCCGCGGTGTTCAAGGCATTGGAGCAGCCTCAGGAGATTTCCCAGAGGACCACCATT 11eTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln CTCTTTGTGGCTCTCCCTGCGGTCATATTCAAGCACATAGAAGGCTGGAAC AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 1384 AAGAAGACGAAGGAAGAGTGGGAGAGTTCAGAGGGGATGCCGCTGAGTGGACAGCCAAT ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 484 AIGGCGGCCCCTGACTTGCTGGATCCCAAGTCTGCTGCTCAGAACTCCAAACCGAGGCTC ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle GlyAlaAlaValPheLysAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrTle GTGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCACTCAACTCCACCGAGCTGGAC LeuGlyThr1lePheGlyLyBGly1leAlaLy8ValGluAspThrPhe1leLy8TrpAsn ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp 1204 GCTATCTATTTTGTGGTTATCACTCTGACGACCATTGGATTTGGAGACTACGTGGCTAGGT GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 264 GGATCAGACATTGAATATCTGGACTTCTACAAGCCTGTGGTGTGGTGTCTCTGGATCTCGTT GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 41 604 784 844 181 1024 1084 1144 241 61 664 81 101 121 161 201 221 261 281 301 321

a à

```
321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                                                                                                                                                                                                          GINArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                            LeupheValAlaLeuproAlaValllePheLysHisIleGluGlyTrpSerAlaLeuAsp 240
                                                                                                                                                                                                                                                                             GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer 300
                                                                                                                                                                301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                1444 GICACGGCCGAGITICAAGGAAACGAGGAGGCGGCTGAGCGIGGAGAICTACGACAAGITIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1504 CAGCGTGCCACATCCGTGAAGCGGAAGCTCTCCGCAGAGCTGGCGGGCAACCACAACCAG
     LeuGlyThr11ePheGlyLySGlyI1eAlaLySValGluAspThrPheI1eLySTrpAsn
                                                       ValSerGlnThrLyslleArgllelleSerThrllellePhelleLeuPheGlyCysVal
                                                                                                                                                                                                                      GlySerAsplleGluTyrLeuAspPheTyrLysProValValTrpPheTrplleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: PATEL, AMANDA J.
APPLICANT: HONORE, ERIC
APPLICANT: HONORE, ERIC
APPLICANT: LESAGE, FLORIAN
APPLICANT: ADMENT, GEORGES
TITLE OF INVENTION: A method for the identification of anesthetics
FILE REPRENCE: £17bl2proy3-humanTREK
CURRENT APPLICATION NUMBER: US/09/503,089A
CURRENT FILING DATE: 2000-02-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1236
356
8
4
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1564. GAACTGACTCCGTGTAGGAGGACC 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 GluieuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 1, Application US/09503089A; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.18e-193
1833.00 ·
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Microsoft Word 2000
SEQ ID NO 1
LENGTH: 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..(1236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: CDS
; LOCATION: (1).
US-09-503-089A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-503-089A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                             1144
                                                                                                                                                                                                                                                                                  281
          181
                                                             201
                                                                                                                   221
                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                 셤
                                                                                                            à
                                                                                                                                          a
                                                                                                                                                                      à
                                                                                                                                                                                          셤
                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                          셤
                              g
                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161 IleTyrAlaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          784 GAACTCATCCAGCAATAGTGGCAGCAATAAACGCAGGGATTATCCCCTTAGGAAACAGC 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyAlaAlaValPheLySAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Metalaalaproaspleuleuaspprolysseralaalaglnasnserlysproargleu
                                                                                                  APPLICANT: PATEL AWANDA J.
APPLICANT: PATEL AWANDA J.
APPLICANT: HONORE, ERIC
APPLICANT: LESAGE, FLORIAN
APPLICANT: LESAGE, FLORIAN
APPLICANT: LAZDUSKI, MICHEL
TITLE OF INVENTION: A method for the identification of anesthetics
FILE REPERENCE: f17blzprov3-humanTREK
CURRENT APPLICATION NUMBER: US/09/503,089A
CURRENT APPLICATION NUMBER: US/09/503,089A
CURRENT PILING DATE: 2000-02-11
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Microsoft Word 2000
SEQ ID NO 3
LENGTH: 3580
                                                                                                                                                                                                                                                                                                                                                                                              3580
367
0
1
0
0
                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-655-272-4 (1-370) x US-09-503-089A-3 (1-3580)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                 GlubeuThrProCysMetArgThr 368
                                                                 US-09-503-089A-3; Sequence 3, Application US/09503089A; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                            3.22e-196
1864.00
99.73%
99.73%
                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: CDS
; LOCATION: (484)..(1719)
US-09-503-089A-3
                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
  361
                                                                                                                                                                                                                                                                                                                  FEATURE:
```

상 음

ò a ò 엄 g ð à ð ద ઠે 업 ò a ઠે

à

1503

320

1263

260

1323

280

요

ઠે 음. 장 g

8

셤

8

유

ò

셤

ઠે

정

ઠે 셤 8

δ

g

ઠે g 8 g

ò 셤 δ g 셤

ò 셤 ş

ઠે

셤 ò 요 ઠ

```
69 TCGTTTTCCACGAACCCACAGTGCTTGCTTCCCGGGTGAGAGTGACACGACCATTAAT 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101 GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                249 GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309 GAACTCATTCAGCAATAGTGGCAGCAATAAATGCAGGGATTATACGTAAGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 ThrThr1leGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161 IleTyrAlaLeuLeuGly11eProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                129 GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81 ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTCTTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            429 ACAACCATAGGATTTGGAAACATCTCACCAGGCACAGAAGGCGGCAAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1246
3356
8
8
4
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-655-272-4 (1-370) x US-09-828-746-1 (1-1246)
                                                                                                      GENERAL INFORMATION:
APPLICANT: Helen Jame Meadows
APPLICANT: Helen Jame Meadows
TITLE OF INVENTION: NOVEL COMPOUNDS
FILE REPERENCE: GP-3001-D1
CURRENT FILING DATE: 2001-04-09
PRIOR APPLICATION NUMBER: US 09/236,080
PRIOR PILING DATE: 1999-01-25
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR FILING DATE: 1998-01-27
PRIOR PILING DATE: 1998-10-09
SHOR FILING DATE: 1998-10-09
SOFTWARE: FEASTER FOR WINDER: US 9822135.1
PRIOR FILING DATE: 1998-10-09
SOFTWARE: FEASTER FOR WINDER: US 9822135.1
PRIOR PILING DATE: 1998-10-09
SOFTWARE: FEASTER FOR WINDER: US 9822135.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
                                             1081 GAGCTGACTCCTTGTAGGAGGACC 1104
                .euThrProCysMetArgThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.21e-193
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
Pred. No.:
                                                                             RESULT 5
US-09-828-746-1
                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-828-746-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score:
                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCACAGCCGAATTCAAAGAAACCCAGGAGGCGACTGAGTGTGGGAGATTTATGACAAGTTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluLeuileGlnGlnileValAlaalaileAsnAlaGlyileileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValSerGlnThrLys1leArg1le1leSerThr1le1lePhe1leLeuPheGlyCysVal 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                            120
                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                           180
                                                                                            40
                                                                                                                                                            9
                                                                                                                                                                                                                           80
                               20
                                                              9
                                                                                            GlyAlaAlaValPheLySAlaLeuGluGlnProGlnGluIleGerGlnArgThrThrIle
                                                                                                                                                                                                                                                                              ValileGinLysGinThrPheileAlaGinHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                          ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCTATGCCTTACTGGGGAATTCCCCTCTTTGGTTTTCTTTGGCTGGAGTTGGAGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTTGTGGCTCTGCCTGCGGATCATATTCAAACACATAGAAGGCTGGAGTGCCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATCCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyLeualaTyrPhealaalaValLeuSerMetIleGlyAspTrpLeuArgVallleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                                                                                                                                            ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                              GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                    SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAlaGlyThrVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuPheValAlaLeuProAlaValIlePheLy8HisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841 GGGCTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGATGACTACGTTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
US-09-655-272-4 (1-370) x US-09-503-089A-1 (1-1236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                             21
                                                                                                                            61
                                                                                                                                                             41
                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
```

180

188

9

40

68

20

248 100 308 120 368 140 428 160 488

```
GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlYIleIleProLeuGlYAsnSer 120
                                                                                                                                                                                                                                                                                                                                         309 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC 368
                                                                                                                                                                                                                                                                                                                                                                                SerAsnGlnValSerHisTrpAspLeuGlySerSerPhephePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                 ThrihilleGlyPheGlyAsnileSerProArgThrGluGlyGlyLysilePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLeualaTyrPhealaAlaValLeuSerMetIleGlyAspTrpLeuargValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AlarleTyrPheValVallleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        valileGinLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                         GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrTlie
                                                                                                                                                                                                                                                                                249 GIGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
      US-09-655-272-4 (1-370) x US-09-980-350-1 (1-1246)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     489
                                                                                                                                                         41
                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                   129
                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                      음 중
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                   g
                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                         ò
                                                                                                 ò
                                                                                                                                                         à
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                              280
                                                                                                                                                                                                                                                                                           848
                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                            LystysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                         609
                                                                                     220
                                                                                                                  668
                                                                                                                                               240
                                                                                                                                                                         728
                                                                                                                                                                                                      260
                                                                                                                                                                                                                                 788
                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG
                                                                                                         LeuDhevalAlaLeuDroAlavalllePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                           AlalleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                                                                   GlySerAsp11eGluTyrLeuAspPheTyrLysProValValTrpPheTrp11eLeuVal
                                                                                                                                                                                                                                                                               GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                              LeuGlyThrIlePheGlyLySGlyIleAlaLySValGluAspThrPheIleLySTrpAsn
                                            ValSerGlnThrLysIleArg1leIleSerThrIleIlePheIleLeuPheG1yCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1246
356
8
4
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POLYPEPTIDES AND ENCODING THEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6

US-09-980-350-1

Sequence 1, Application US/09980350

Sequence 1, Application US/09980350

GENERAL INPORMATION:

APPLICANT: HERVIEW, GUILLAUME JEAN

APPLICANT: HERVIEW, ANDREW DAVID

TITLE OF INVENTION: USES OF H-TREK-1 POLYPEPT

TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING

FILE REPERRNCE: P32320

CURRENT APPLICATION WUMBER: US/09/980,350

CURRENT PILING DATE: 2000-06-01

PRIOR FILING DATE: 2000-06-01

PRIOR FILING DATE: 1999-06-01

NUMBER OF SEQ ID NOS: 2

SOFTWARE: FastSEQ for Windows Version 4.0

SEGION OF THENCE T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.21e-193
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Homo sapiens
US-09-980-350-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         696
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                         729
                                                                                                                                                                                                                                                                                               789
                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                        849
                                    181
                                                               549
                                                                                           201
                                                                                                                         609
                                                                                                                                                     221
                                                                                                                                                                                699
                                                                                                                                                                                                                                                                      261
```

g

à ₽

S G

셤 ö g ∂

ò ద ઠે ò g ò g

à

1028 340

300

260 788 280 848

200 608 220 668 240 728

548

248 100 308

188

80

128 9

89 40 320 896

셤

ò

```
1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1088
                                                                                                                                                                                                                                                                                                                                                                                              321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                               341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                 240
                                                                                                                                                                                               280
                                                                                                                                                                                                                                                                                               908
                                                                                                                                                                                                                                                                                                                              320
                                                                                                                                                                                                                                                                                                                                                               968
                                668
                                                                                              728
                                                                                                                              260
                                                                                                                                                               788
                                                                                                                                                                                                                              848
                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Miller, Andrew P.
APPLICANT: Miller, Andrew P.
APPLICANT: Curran, Mark Edward
APPLICANT: Hu, Ping
APPLICANT: Hu, Ping
APPLICANT: Hu, Ping
APPLICANT: Hu, Ping
APPLICANT: Wang, Jian-Wang
ITLE OF INVENTION: NOW-I Human Potassium Channels
FILE REFERENCE: SEQ-1sP
CURRENT FILING DATE: 2002-04-11
PRIOR PILING DATE: 1999-06-18
PRIOR FILING DATE: BAPLICATION NUMBER: 60/076,687
PRIOR FILING DATE: EARLIER APPLICATION NUMBER: 60/116,448
PRIOR FILING DATE: EARLIER FILING DATE: 1999-09-7
PRIOR PILING DATE: EARLIER FILING DATE: 1999-07
PRIOR FILING DATE: EARLIER FILING DATE: 1999-07
PRIOR FILING DATE: EARLIER FILING DATE: 1999-01-19
PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 87
SOFTWARE FREESQ for Windows Version 4.0
SEQ ID NO 82
LENGTH: 3300
                                                             909 AAAAAGACAAAAGAAGAGGGGGGGGGGTGGGGTTCAGAGCACACGCTGCTGGTGGGACAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                  969 GTCACAGCCGAATTCAAAGAAACCAGGAGCGGACTGAGTGTGGAGATTTATGACAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     729 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCGGT
                                                                                                                                                                                                                 789 GGATCCGATATTGAAATATCTGGACTTCTATAAGCCTGTCGTGTGGTTCTGGATCCTTGTA
                                                                                                                                                                                                                                                               281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                849 GGGCTTGCTTTGCTGCTGCTGTGTTGGTTGGAGTTGGCTCCGAGTATTCT
                                                                                                                                                                                                                                                                                                                              301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn
                              609 GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA
                                                                                                                           261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
 201 ValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3300
356
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1089 GAGCTGACTCCTTGTAGGAGGACC 1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 82, Application US/10121746; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .31e-193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1833.00
98.91%
96.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: H. sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (50).
US-10-121-746-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-10-121-746-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score:
                         셤
                                                                                   셤
                                                                                                                           8
                                                                                                                                                        셤
                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                 ઠ
200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAGGCACCATATTTGGAAAAAGGAATTGCCAAAGTGGAAGAAGATACGTTTATTAAGTGGAAT 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyThr11ePheGlyLyGGly11eAlaLy8ValGluAspThrPheI1eLy8TrPAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 Argacadeacergaerraciogarecraaarergeceercagaacrecaaacegageere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetAlaAlaProAspLeuLeuAspProLysSexAlaAlaGlnAsnSexLysProArgLeu
                                                                                                                      Sequence 35, Application US/10036657
GENERAL INFORMATION:
APPLICANT Earl Francis Albone, et al.
TITLE OF INVENTION:
CURRENT APPLICATION NUMBER: US/10/036,657
CURRENT FILIG DATE: 2001-12-21
NUMBER OF SEQ ID NOS: 107
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 35
LENGTH: 1246
                                                                                                                                                                                                                                                                                                                                                                                              1246
356
8
4
0
                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370) x US-10-036-657-35 (1-1246)
                                               .089 GAGCTGACTCTTGTAGGAGGACC 1112
                              GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                          2.21e-193
1833.00
98.91%
96.74%
97.34%
                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity:
                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                            RESULT 7
US-10-036-657-35
                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: HO
US-10-036-657-35
1029
                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                               Score:
Percent (
```

ઠે g Š g ò g õ g ò 셤

셤 à 셤

ઠે

ద ઠે 요 ઠે

ઠે

Oy 341 GlnargalaThrSerVallysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360	Oy 361 GluLeuThrProcysMetArgThr 368	RESULT 9 PCT-US99-01826-82 ; Sequence 82, Application PC/TUS9903826A ; GENERAL INFORMATION:	APPINICANT: WILLE, MUNICAN, MARK ; TITLE OF INVENTION: Novel Human Potassium Channels ; FILE REFERENCE: SEQ-15FCT ; FILE REPERENCE: SEQ-15FCT	CURRENT FILING DATE: 1999-02-22; EARLIER APPLICATION NUMBER: 60/076,687; EARLIER PILING DATE: 1998-02-25; SARRIER PILING DATE: 1998-02-25; SARRIER APPLICATION NUMBER: 60/076,835	EARLIER FILING DATE: 1998-08-07 ; EARLIER PILING DATE: 1998-08-07 ; EARLIER APPLICATION NUMBER: 60/116,448 ; EARLIER PILING DATE: 1999-01-19 ; WINDER OF SEO ID NOS: 87	SOFTWARE: FastSEQ for Windows Version 3.0; SEQ ID NO 82; LENGTH 3300	TYPE: DNA CROMISM: H. sapiens FEATURE: FRATURE: TOANTON: (50) (1285)	PCT-US99-03826-82 Alignment Scores:	· 	US-09-655-272-4 (1-370) x PCT-US99-03826-82 (1-3316)	Qy 1 MetalaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu 20	Qy 21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAla1leAsn 40	Qy 41 ValMetLysThrValSerThrIlePheLeuValValLeuTyrLeuIleIle 60	Qy 61 GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle 80	Oy 81 VallleGlmLysGlnThrPheIlealaGlnHisAlaCysValAsnSerThrGluLeuAsp 100	Oy 101 GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120	Qy 121
97.34% Inde	-655-272-4 (1-370) x US-10-121-746-82 (1-3300) 1 MetalaalaProAspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu 20	21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40	41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle 60	61 GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle 80	81 ValIleGInLysGlnThrPheIleAlaGInHisAlaCysValAsnSerThrGluLeuAsp 100	101 GluLeulleGlnGlnnleValAlaAlaIleAbnAlaGlylleIleBroLeuGlyAbnSer 120	121 SerasnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140	141 ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLySIlePheCysIle 160		181 LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn 200		- 0					ValThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe

د:

) x US-10-170-235-27467 aProAspleuleuAspProLysS	Db 64 GTGGCGCACCTGACTTGCTGCAAATCTGCCGCTCAGAACTCCAAACCGAGGTTC 123 Oy 21 SerPheSerSerLysProThrValleuAlaSerArgValGluSerAspSerAlaIleAsn 40	124	Db . 184 GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTGATCATCTGGTGATCATC 243 Qy 61 G1yAlaAlaValPhetVySAlaLeuGlUGLNPrOGINGINIIESErGINATGTHTTHTILE 80	Db 244 GGAGCCACCGTGTTCAAAGCATTGGAGCACCCTCATGAGATTTCACAGAGGACCACCATT 303 Qy 81 ValileGlniygGlnThrPhelleAlaGlnHisAlaCysValaAnsSerThrGluLeuAsp 100	Db 304 GIGATCCGAAGAAGATCATATCCCAAGATCGGTGAATTGAGGTGGAT 363 Oy 101 GlubeulleGluGluTleValAlaAlaIleAsnAlaGly[left]leProbeuGlyAsnSer 120	Db 364 GAACTCATTCAGCAATAGTGGCAATAATGCTGGATTATACCGTTAGGAAACACC 423 Qy 121 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValle 140	Db 424 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTTTTTTGGGAAGTTCTTTTTTTT	Db 484 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAGGCGGCAAAATATTCTGTATC 543 Qy 161 jeTyrAlaLeuLeuGlyjleProLeuPheGlyPheLeuLeuAlaGlyVaslGlyAspGln 180	544 AICTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG	Oy 181 LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn 200			724 CTCTTTGTGGCTCTGCCTGCGATCATACAAACACATAGAAGGCTGGAGTGCCCTGGAC 241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyBegTyrValAlaGly 11	Db 784 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGATTACGTTACGTTGCAGGT 843 Qy 261 GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrp1leLeuVal 280	281 GlyLeualaTyrPhealaalaValLeuSerMetIleGlyAspTrpLeuargVallleSer	Oy 301 LysLysThrLysGluGluValGlyGluDheArgAlaHisAlaAlaGluTrpThrAlaAsn 320 Db 964 AAAAAGACAAAGAAGAGGGGAGAGTTCAGAGCACACGCACG	Qy 321 ValThralaGluPheLysGluThrargargArgLeuSerValGluIleTyrAspLysPhe 340 Db 1024 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGGGAGTTTATGACAAGTTC 1083	Oy 341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
			ellePhelleLeuPheGlyCysVal 220	######################################	eGlyPheGlyAspTyrValAlaGly 260	OVAIVAITTPPHOTTPILELEUVAI 280 	eGlyAspTrpLeuArgVallleSer 300	aHisAlaAlaGluTrpThrAlaAsn 320 	9 34	GAGTGTGGAGATTTATGACAAGTTC 1069 aGluLeuAlaGlyAsnHisAsnGln 360	AGAACTGGCTGGAAACCACAATCAG 1129			ARRAYS, COMPRISING A MAJORITY OF HUMAN G EXPRESSION AND OTHER USES THEREOF			3256 355 Ve: 9	
141 ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLy8IlePheC 	161 IleTyralaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyA 	181 LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysT 	201 ValSerGlnThrLysIleArgilelleSerThrIleIlePheileLeuPheGlyC 	221 LeuPheValAlaLeuProAlaValllePheLysHisIleGluGlyTrpSerAlaLeuAsp 	241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAl 	261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 	281 GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValI 	301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrA 	321 ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPh	1010 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTC 341 GlnArgAlaThrSerValLysArgLysLeuSerAla		361 GIULEUTNFFTOCYSMECARGINF 368 	RESULT 10 US-10-170-235-27467 US-10-170-235-27467, Application US/10170235 ; GENERAL INFORMATION:	LICANT: VENTER, J. Craig LE OF INVENTION: KITS, SUCH AS NUCLEIC ACID LE OF INVENTION: TRANSCRIPTS, FOR DETECTING E REFERENCE: CLOOLISE ENTRY AND TOWN MINDED. HO / 10 / 10 / 10 / 10 / 10 / 10 / 10 / 1	AGNI AFFILING DATE: 2013-07-17 RENT FILING DATE: 2003-03-17 BER OF SEQ ID NOS: 42514 ID NO 27467 NGTH: 3256	TYPE: DNA ORCANISM: HUMAN -10-170-235-27467	Alignment Scores: 2.28e-192 Length: Score: 1829.00 Matches: Percent Similarity: 98.91% Conservative:	6.4/8 7.13% 8
S S	& 43 B	දු පු	& 4a	B &	SP GS	SP GS	& 93 19	à a	à	ብ <i>እ</i>	do .	දු අ	S-10- Seque	API CIT	SEO CUB	T. OI IS-10-	ligni red. core:	uery B:

```
| Sequence 3496, Application US/60455444 |
| Sequence 3496, Application US/60455444 |
| GENERAL INFORMATION: |
| GENERAL INFORMATION: |
| APPLICANT: CARGILL, Michele |
| APPLICANT: BEGOVICH, Ann |
| APPLICANT: BEGOVICH, Ann |
| APPLICANT: BEGOVICH, Ann |
| TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF |
| TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF |
| TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF |
| TITLE OF INVENTION: BALICATION NUMBER: US/60/455,444 |
| CURRENT FILING DATE: 2003-03-18 |
| NUMBER OF SEQ ID NOS: 50986 |
| SEQ ID NO 3496 |
| LENGTH 3256 |
| L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnArgalaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                                                                              301 LystysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValThrAlaGluPheLysGluThrArgArgLeuSerValGluIleTyrAspLysPhe 340
                                                                                                       783
                                                                                                                                              260
                                                                                                                                                                                  843
                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                           281. GlybeuhlatyrpheAlahlaValLeuSerMetileGlyAspTrpbeuArgVallleSer 300
                                                                                                                                                                                                                                                                                                                         MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GTGGCGCCCCTGACTTGCTGGATCCTAATCTGCCGCTCAGAACTCCAAACCGAGGCTC
            LeuphevalAlaLeuproAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                            AlalleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly
                                                                                                                                                                    GlySerAspileGlufyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal
                                                                                       3256
355
9
4
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-4 (1-370) x US-60-455-444-3496 (1-3256)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1144 GAGCTGACTCCTTGTAGGAGGACC 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.28e-192
1829.00
98.91%
96.47%
97.13%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: HOMO
US-60-455-444-3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
US-60-455-444-3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                               724
                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                           221
                                                                                                                                                                                                                                 261
201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                       g
                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                          QQ
                                                                         Š
                                                                                                     . g
                                                                                                                                              ò
                                                                                                                                                                  APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1447.
FILE REFERENCE: CLOO1443, 566
CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FREUSEQ for Windows Version 4.0
SEQ ID NO 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vall1eGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrThr11eG1yPheG1yAsn11eSerProArgThrG1uG1yG1yLys11ePheCys11e 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244 GGAGCCACGTGTTCAAAGCATTGGAGCACCTCATGAGATTTCACAGAGGACCACCATT 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 304 GIGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGAGCTGGAT 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlureuileGinGlnileValAlaAlaileAsnAlaGlyileileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCAATCAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTCTTGCTGGCACTGTTATT 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAlaAlaValPheLysAlaLeuGluGlnBroGlnGlulleSerGlnArgThrThrIle 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3256
355
9
4
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-4 (1-370) x US-60-443-566-876 (1-3256)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                        1144 GAGCTGACTCCTTGTAGGAGGACC 1167
        GluLeuThrProCysMetArgThr 368
                                                                                                                   Sequence 876, Application US/60443566; GENERAL INFORMATION: APPLICANT: CARGILL, Michele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.28e-192
1829.00
98.91%
96.47% ·
97.13%
                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                     RESULT 11
US-60-443-566-876
                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Hom
US-60-443-566-876
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
          361
```

8 8 8

ò g ò 중 음

\$ g

ò 셤 õ g ò g ò 유

```
Score:
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1083
                                                                                                                                                                                                          360
                                                                                                                                                                         ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLysI1ePheCys11e 160
                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                    100
                                                                                     363
                                                                                                    GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                        SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 140
                                                                                                                                                                                           543
                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                   783
                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                      843
                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                         300
                243
                                                  303
                                                                                                                       423
                                                                                                                                                         483
                                                                                                                                                                                                                                                               663
                                                                                                                                                                                                                                                                                                 723
                                                                                                                                                                                                                                                                                                                                                                                                        903
                                                                                                                                                                                                                                                                                                                                                                                                                                          963
                                 80
9
GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                             GTGATCCAGAAGCAAACATTCATATCCCAACATTCCGACGAGCTGGAT
                                                                                                               GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGATTATACCGTTAGGAAACACC
                                                                                                                                                 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTGTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                           CTCTTTGTGGCTCTGCCTGCGATCATATTCAAACACATAGAAGGCTGGGAC
                                                                                                                                                                                                                                                                                                                                                   GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGGAGATTTATGACAAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln
                                 GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                   ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                            LeuGlyThr11ePheGlyLy8Gly11eAlaLy8ValGluAspThrPhe11eLy8TrpAsn
                                                                                                                                                                                                                                                                                                                  LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCTTGCTTACTTTGCTGTCCTGAGCATGATTGGAGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAAGAACTAAAGAAGAGGGGGAGAGTTCAGAGCACACGCTGCTGGTGGACAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               caddedeccadercarcaagegaagererceecagaacreecreeaaaccacaarcae
                                                                                                                                                                                          ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGYGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                               CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
US-60-465-241-3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144
                184
                                                  244
                                                                    81
                                                                                                                                                        424
                                                                                                                                                                          141
                                                                                                                                                                                          484
                                                                                                                                                                                                                             544
                                                                                                                                                                                                                                                                                                                                                                     784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            964
41
                                 61
                                                                                    304
                                                                                                     101
                                                                                                                      364
                                                                                                                                        121
                                                                                                                                                                                                           191
                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                              604
                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                 664
                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                                                        844
                                                                                                                                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                                                                                                                         904
                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                             g
                                                                                                                 g
                                                                                                                                                   g
                                                                                                                                                                   ð
                                                                                                                                                                                        셤
                                                                                                                                                                                                           8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6
           g
                                                                 8 &
                                                                                               ઠે
                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
ઠ
                             કે
                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

Sequence 3496, Application US/60465241 GENERAL INFORMATION:

APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: HARDWATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REPERENCE: CL001468
CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT APPLICATION NOWBER: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3496
LENGTH: 3256 100 304 GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT 363 120 423 140 483 160 543 180 603 200 663 220 240 123 183 243 303 723 783 20 40 80 9 184 GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTTATCTGATCATC 364 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACGTAGGAAACACC ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln LeuGlyThr1lePheGlyLysGly1leAlaLysValGluAspThrPheIleLysTrpAsn Metalaalaproaspleuleuaspprolysseralaalaglnasnserlysproargieu 64 GTGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACCGAGGCTC ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle GlyAlaAlaValPheLysAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrIle ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp GlubeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 544 ATCTATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAG 604 CTAGGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAAT GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA ValSerGlnThriysIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal 3256 9 55 0 0 0 0 Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps: x US-60-465-241-3496 (1-3256) 2.28e-192 1829.00 98.91% 96.47% 97.13% sapiens US-09-655-272-4 (1-370) Percent Similarity: Best Local Similarity: Query Match: DB: , ORGANISM: HOMO US-60-465-241-3496 Alignment Scores: Pred. No.: н 121 141 201 41 664 61 81 101 181 221 TYPE: DNA 724 ठ 셤

Db 766 GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT 825 Qy 81 ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100	Db 826 GTGATCCAGAAGCATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT 885 Oy 101 GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120	886 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC	Oy 121 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140	141 ThrThriledlyPheGlyAsnileSerProArgThrGluGlyGlyLysllePheCyslle	Db 1006 ACAACCATAGGATTIGGAAACATCICACCACACAGAGGGGGGGAAAATATICIGIAIC 1005 Qy 161 IleTyralaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180	Db 1066 ATCTANGCCTTACTGGGAATTCCCCTTTTGGTTTTCTCTTGGGTTGGAGTTGGAATCGG 1125 Oy 181 LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTtpAsn 200	TAAGTGGAAT eGlyCysval	1186 GTTÄGTCAGACCAAGATTCGCATCATCTCAACAATCATATTATACTATTTGGCTGTGTA 221 LeupheValalaLeuproalaValllepheLysHisIleGluGlyTtpSerAlaLeuAsp	Db 1246 CTCTTTGTGGCTCTGCGATCATATTCAAACACATAGAAGGCTGGAGTGCCCTGGAC 1305 Qy 241 AlalleTyrPheValVallleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 260 1.10	261 GISSEASPILEGLUTYLEUASPPHETYLLYSPROVALVALTYPPHETYPILELEUVAL 1	Qy 281 GlyLeuAlaTyrPheAlaAlaValLeuSerWetIleGlyAspTrpLeuArgValIleSer 300	Qy 301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320 	Oy 321 ValThralaGluPheLysGluThrArgArgArgArgLeuSerValGluIleTyrAspLysPhe 340	Qy 341 GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360 	Oy 361 GluLeuThrProCysMetArgThr 368 	RESULT 15 US-10-349-528-9 ; Sequence 9, Application US/10349528 ; GRNERAL INFORMATION:	; APPLICANT: RAMANATHAN, Chandra; ; APPLICANT: GOPAL, Shuba ; APPLICANT: GOPAL, Shuba ; APPLICANT: FEDER, Gabe ; APPLICANT: PEDER, John ; TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTOR (GPCR) VARIANTS AND METHODS OF ; TITLE OF INVENTION: USE THEREOF ; FILE REFERENCE: D0210
Oy 241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValalaGly 260 	Oy 261 GlySerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 280	28 GlyLeuhlafyrhehlaAlaValLeuSerMetileGlyAspTrpLeuArgVallleSer 30	Db :904 GGGCTTGCTTTGCTGCTGCTGTGCTTGGCTTGGAGTTGGCTCCGAGTGTTTTTGTAGTTTGGCTCCGAGTGTTTTTTTT		Qy 321 ValThralaGluPheLysGluThrargargargLeuSerValGluIleTyrAspLysPhe 340 Db 1024 GTCACAGCCGAATTCAAAGAAACCAGGAGGCGACTGAGTGTGAGATTTATGACAAGTTC 1083	Oy 341 GlnArgAlaThrSerValLysArgLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360	Qy 361 GluLeuThrProCysMetArgThr 368 bb 1144 GAGCTGACTCCTTGTAGGAGGACC 1167	RESULT 14 PCT-US03-01911-9; Sequence 9, Application PC/TUS0301911 ; GENERAL INFORMATION:			NUMBER OF SEQ ID NOS: 35); SOFTWARE Patentin version 3.2); SEQ ID NO 9); LENGTH: 2391	; TYPE: DNA ; ORGANISM: HOMO SAPIENS PCT-US03-01911-9	2.5e-192 1827.00 98.91%	Mismatches: Indels: Gaps:	-09-655-272-4 (1-370) x PCT-US03-01911-9 (1-2391) 1 MetalaalaaProAspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu 20 :::	Db 586 TTGGCGGCCCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACTCGAGGCTC 045 Qy 21 SerPheSerSerLySProThrValLeuAlaSerArgValGluSerAspSerAla11eAsn 40	Oy 41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle 60

```
GATCCGATATTGAATATCTGGACTTCTATAAGCCTGTCGTGTGGGTTCTGGATCCTTGTA 1425
                                                                                            301 LysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsn 320
                                                                                                                                                                  1546 GTCACAGCCGAATTCAAAGAAACCAGGAGCGACTGAGTGTGTGGAGATTTATGACAAGTTC 1605
                                                                                                                                                                                                                       GlnArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGln 360
                                                                                                                                                   ValThrAlaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPhe
                                       GlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSer
                                                               1426 GGGCTTGCTTACTTTGCTGCTGTCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCT
                                                                                                                                                                                                                                                                                                                                 3, 2005, 06:23:45
                                                                                                                                                                                                                                                                             361 GluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                              completed: February
He : 4488.83 secs
                                           281
                                                                                                                                                    321
                                                                                                                                                                                                         341
                1366
                                                                                                                                                                                                                                                                                                                                 Search co
                                      ò
                                                            g
                                                                                         8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTTGCTGGCACTGTTATT 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1006 ACAACCATAGGATTTGGAACATCTCACCACGGACAGAAGGGGGGGAAATATTCTGTATC 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1186 GTTAGTCAGACCAAGATTCGCATCATCTCAACAATTATATACTATTTGGCTGTGTA 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyrValAlaGly 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlyThrIlePheGlyLySGlyIleAlaLySValGluAspThrPheIleLySTrpAsn 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp 240
                                                                                                                                                                                                                                                                                            S86 TTGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACCGAGGCTC 645
                                                                                                                                                                                                                                                                                                                                                GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCTCTTATCTATTCTATATGAAATGGAAATGTAACATCTCAGATATTCTTGTTGTC 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   886 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC 945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261 GlySerAspIleGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuVal 280
                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1306 GCCATTTATTTTGTGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCTGCAGGT
                                                                                                                                                                                                                                                                       MetalaalaProAspLeuLeuAspProLysSeralaalaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                       41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAlaAlaValPheLysAlaLeuGluGlnFroGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValSerGlnThrLygIleArgIleIleSerThrIleIlePheIleLeuPheGlyCysVal
                                                                                                                                                   2391
354
10
4
0
                                                                                                                                                                               Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                x US-10-349-528-9 (1-2391)
                                                                                                                                                    Length:
Matches:
CURRENT APPLICATION NUMBER: US/10/349,528
CURRENT FILING DATE: 2003-01-22
NUMBER OF SEQ ID NOS: 35
SOFTWARE: Petentin version 3.2
SEQ ID NO 9
LENGTH: 2391
TYPE: DNA
ORGANISM: HOMO SAPIENS
                                                                                                                                                 2.5e-192
1827.00
98.91%
96.20%
97.03%
                                                                                                                                                                                                                                                US-09-655-272-4 (1-370)
                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                       Alignment Scores:
Pred. No.:
                                                                                                             US-10-349-528-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                  904
                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

THIS PACE LEFT BLANK

Perfect score:

Title:

Sequence:

1

OM protein

ä

Run

Scoring table:

Searched:

```
GSS 17-DEC-2003
CO248930 AGENCOURT
CO249404 AGENCOURT
CO249106 AGENCOURT
CO249306 AGENCOURT
CO249306 AGENCOURT
CC0249306 AGENCOURT
CC0249306 AGENCOURT
CF171014 B0837A01-
B0042251 UI-M-B00-
B0042251 UI-M-B00-
B0042251 UI-M-B00-
B0052302 AGENCOURT
CD625302 S50136740
CD625312 S50138954
CD625314 S50137514
CD625314 S50137514
CD625316 S5013864
CD625316 S50138784
CD625310 S50138784
CD625310 S50136744
CD625310 S50136744
CD625310 S50136754
CD625310 S50136754
CD625310 S50136754
CD625310 S50136754
CD625310 S50136754
CD625310 S50137777
CD625310 S50136754
CD625310 S50137777
CD625310 S501377717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
Mus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 1113)
Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A.,
Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B.,
Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J.,
Adams,M.D. and Cargill,M.
Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14671302

(Dases 1 to 1113)

Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A., Toda,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering them based on alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AY418067 1113 bp DNA linear GSS 17-DEC
Mus musculus KCNK2 gene, VIRTUAL TRANSCRIPT, partial sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                       CO249306
CO245300
CF171014
BX478651
CN528767
BQ0456095
CA871490
AY405804
                                                                                                                                                                               CD625302
CD625313
CD625322
                                                                                                                                                                                                                       CD625314
CD625321
CD625293
                                                                                                                                                                                                                                                                              CD625319
CD625318
CD625320
CD625321
CD625310
CD625310
CD625324
CD625296
CD625296
CD625330
AY405806
                                                                                                                                                                                                                                                                                                                                                                                                                                CD625308
CD625300
CD625398
                                                                                                                                                                                                                                                               CA890051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AY418067.1 GI:39774027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .1113
                                                                                                                                                                                                                                                   653
528
530
530
533
533
533
631
11197
531
535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene trios
                                                         AY418067
                                                                                                              955
945
945.5
943.5
932.5
924.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
AY418067
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
    ·'.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:
-MODEL=frame+ p2n.model.-DEV=x1h
-Q=/Cgn2_1/USPTO_epool/US0965572/runat_02022005_141715_6758/app_query.fasta_1.1102
-Q=/Cgn2_1/USPTO_epool/US0965572/runat_02022005_141715_6758/app_query.fasta_1.1102
-Q=/Cgn2_1/USPTO_epool/US0965572/runat_0202006_1-LOOPCL=0.-LOOPCL=0.
-UNITS=bite -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-UOTAFWT=pto -NORM=ext -HEAPEISTE=560 -MINLENE=0.AMXLENE=2000000000
-USRE=US09655272_GCGN 1_1 4385_Grunat_0202505_141715_6758_NCPU=6.-ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0.-WAIT -DSPEDCCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN TIMEOUT=0.9.THREMDS=1 -XGAPOP=10 -XGAPORT=0.5 -FGAPOP=6
-FGABEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AY418067 Mus muscu
AY418065 Homo sapi
AK031066 Mus muscu
AK082153 Mus muscu
AK031904 Mus muscu
AY418066 Pan trogl
CB526721 UI-M-FY0-
BQ946206 AGENCOURT
CK005597 AGENCOURT
                                                                                              2, 2005, 21:56:31 ; Search time 3769.86 Seconds
   (without alignments)
   3576.449 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                            MAAPDLLDPKSAAQNSKPRL.....SAELAGNHNQELTPCMRTCL 370
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                      nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                           32822875 segs, 18219865908 residues
                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AY418067
AY418065
AK036066
AK082153
AK031904
AY418066
CB526721
BQ948206
CK005597
                                                                                                                                                                                                                       Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                    US-09-655-272-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gb_est1:;
gb_htc:;
gb_est3:;
gb_est4:;
gb_est6:;
gb_gss1:;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11113
11113
11745
2534
2628
1113
713
920
654
                                                                                               February
                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           888.3
87.4
66.5
66.5
66.1
64.3
60.2
58.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST: *
```

Jatabase :

1663 1646 1252.5 1252.5 1225.5 1211 1134 1106

26459786

Score

Result No.

```
AY418065 11-DEC-2003 Homo sapiens KCNKZ gene, VIRTUAL TRANSCRIPT, partial sequence, genomic_survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82 IleGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAspGlu 101
                                                           342 ArgalaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                                                                                                                                                                                                                                     Table 10 1113)

Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Clark, A.G., Glanowski, S., Nielson, R., Lu, F., Murphy, B., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Direct Submission

Direct Submission

Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA

This sequence was made by sequencing genomic exons and ordering them based on alignment.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62 AlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIleVal
                 ThralagluphelysgluThrArghrgArgLeuSerValgluIleTyrAspLygPheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1113
318
6
6
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                             Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
<1._.>1113
/gene="KCNK2"
/locus_tag="HCM6433"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-655-272-4 (1-370) x AY418065 (1-1113)
                                                                                               LeuThrProCysMetArgThr 368
                                                                                                                   creacrecardragadeded
                                                                                                                                                                                                    AY418065
AY418065.1 GI:39774025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.89e-191
1646.00
99.08%
97.25%
87.41%
                                                                                                                                                                                                                                    Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                    gene trios
                                                                                                                                                                                                                                                                                                                                                                           14671302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                            GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       н
                                                                                                362
                                                                                                                       196
        322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                              JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                             RESULT 2
AY418065
                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                         셤
                                                   ò
                                                                     g
                                                                                                ò
                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsnVal 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuValGly 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSerLys 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Accaraggarringgaaacarcrcccacgaacrgaaggrggaaaaararrcrgcarcarc 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerGlnThrivs1leArg11e11eSerThr11e11ePhe11eLeuPheGlyCysValLeu 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PhevalalaLeuProAlaValilePheLysHisIleGluGlyTrpSerAlaLeuAspAla 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuileGinGinileValAlaAlaileAsnAlaGiyileIleProLeuGiyAsnSerSer 121
                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLysIlePheCysIleIle
                                                                                                                                                                                                    AlaAlaValPheLysAlaLeuGluGlnGlnFroGlnGluIleSerGlnArgThrThrIleVal
                                                                                                   1113
325
0
2
0
0
                                                                                                   Length:
Matches:
Conservative:
Mismatches:
/organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
<1. . .>113
/gene="KCNK2"
/locus_tag="HCM6433"
                                                                                                                                                            Gaps:
                                                                                                                                                                               US-09-655-272-4 (1-370) x AY418067 (1-1113)
                                                                                                1.52e-193
1663.00
99.39%
99.39%
88.32%
                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                      142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202
                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                          42
                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                              102
                                      gene
```

g

ò

ò

3 d 3 d

셤 à g

8

장염

g

ò

ò

셤

g ò 셤 ð 셤

δ

9

요

ò

d

ઠે

셤 ઠે 셤 ò

ઠે

```
Group Phase I E II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

E (bases 1 to 1145)

E (bases 1 to 1145)

Adachi,J., Aizawa,K., Akimura,T., Hara,A., Hashizume,W., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hashizume,W., Hayashida,K., Hayatsu,M., Hiramcto,K., Hiracka,T., Harozane,T., Katoh,H., Kawai,J., Kojima,Y., Kondo,S., Konno,H., Kouda,M., Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Murata,M., Nakamura,M., Nishi,K., Nomura,Y., Kondo,S., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,T., Takaku,Y., Sasai, M., Sakai,C., Sakai,T., Takaku,Y., Tanaka,T., Tagawa,A., Takahashi,F., Takaku-Akahira,S., Takada,Y., Tanaka,T., Tomaru,A., Takahashi,F., Takaku-Akahira,S., Takada,Y., Tanaka,T., Tomaru,A., Toya,T., Yasunishi,A.,
                                                                                                                                                                                                            Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Komo, H., Okazaki, Y., Muramateu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                           Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. sequencing pipeline with analysis (RISA) system-384-format Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Grup, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1.7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230.0045, Japan (E-mail:genome-res@gsc.riken.jp, WIR.ihttp://genome.gsc.riken.jp/, Tel:81-45-503-9222,
     dammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FANTOM Consortium.
Functional annotation of a full-length mouse cDNA collection
Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΙΙ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The RIKEN Genome Exploration Research Group Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prepare mouse Lissues.
Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
1..1745
                                                       Carninci, P. and Hayashizaki, Y.
ligh-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                   10349636
                                                                                                                                                                                                                                                                                                                                                                            11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20530913
                           REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                        JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AKU36066 HG days neonate cerebellum CDNA, RIKEN full-length enriched library, clone:9630032C21 product:POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus], full insert sequence.
                                                                                                                                    240
                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCACCATATTTGGAAAAGGAATTGCCAAAGTGGAAGATACGTTTATTAAGTGGAATGTT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTGCTTACTTTGCTGCTGTCCTGAGCATGATTGGAGATTGGCTCCGAGTGATATCTAAA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                  121
                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                    ACCATAGGATTTGGAAACATCTCACCACGCACAGAGGCGGCAAAATATTCTGTATCATC 360
                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGCCTTACTGGGAATTCCCCTCTTTGGTTTTCTCTTGGCTGGAGTTGGAGATCAGCTA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerGlnThrLys1leArg1le1leSerThr1le1lePhe1leLeuPheGlyCysValLeu 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerAspileGluTyrLeuAspPheTyrLysProValValTrpPheTrpIleLeuValGly 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeualaTyrPheAlaalaValLeuSerMetIleGlyAspTrpLeuArgValIleSerLys 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThralaGluPheLysGluThrArgArgArgLeuSerValGluIleTyrAspLysPheGln 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 ACAGCCGAATTCAAAGAAACCAGGAGGGGACTGAGTGTGGAGATTTATGACAAGTTCCAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgAlaThrSerValLysArgLysLeuSerAlaGluLeuAlaGlyAsnHisAsnGlnGlu 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AK036066
AK03606.1 GI:26331129
HTC; CAP trapper.
Mus musculus (house mouse)
Mus musculus
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                   AsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallleThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LysThrLysGluGluValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsnVal
                              ATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGCAGCTGGATGAA
                                                                                LeulleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSerSer
                                                                                                                               CTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACCTCC
                                                                                                                                                                                                                                             AATCAAATCAGTCACTGGGAATTTGGGAAGTTCCTTCTTTTTGCTGGCACTGTTATTACA
                                                                                                                                                                                                                                                                                               ThrileGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysIleIle
                                                                                                                                                                                                                                                                                                                                                                                                     TyralaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGlnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAspAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTATTTTGGGTTATCACTCTAACAACTATTGGATTTGGTGACTACGTTGCAGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               receararreaararerecacriciaraaccerererererererecarecriciaracee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781 AAGACAAAAGAAGAGGGGGAGAGTTCAGAGCACACGCTGCTGAGTGGACAGCCAACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyThr1lePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsnVal
LeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACTCCTTGTAGGAGGACC 981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             302
                              121
                                                                                102
                                                                                                                                                                                         122
                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                               142
                                                                                                                                                                                                                                                                                                                                                                                                        162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AK036066
```

g

g

ò

g ઠ g

ò

g

à 유 ð ద ઠ 원 ò

ò

셤

셤

```
AKO82153

Mus musculus O day neonate cerebellum cDNA, RIKEN full-length enriched library, cone:C230015H11 product:POTASSIUM CHANNEL SUBERMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL FREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus], full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A.,
                                                                                                                                197 IleLysTrpAsnValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeu 216
                                                                                                                                                                                                                                                                                                  1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1401 gagriegaaggcriaargrcacrigcrigagrrccgggagacgaaaggcggcrcagcgrrgag 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                    236
                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 316 GluTrpThrAlaAsnValThrAlaGluPhelysGluThrArgArgArgLeuSerValGlu 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336 IleTyrAspLysPheGlnArgAlaThrSerVal-------LysArgLysLeuSer 351
   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata, Vertebrata, Euteleostomi;
Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
177 ValGlyAspGlnLeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrvalAlaGlyGly---SerAspileGluTyrLeuAspPheTyrLysProValValTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuArgValIleSerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAla
                                                            981 ATTGGAGACCAACTTGGAACCATCTTTGGCAAAAGCATTGCAAGAGTGGAAAAGGTTTTT
                                                                                                                                                                                                                                                                    217 PheGlyCysValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrp
                                                                                                                                                                                                                                                                                                                                                                                          SerAlaLeuAspAlaIleTyrPheValValIleThrLeuThrIleGlyPheGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheTrpIleLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    352 AlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCysMetArgThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; (Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTC; CAP trapper.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AK082153.1 GI:26349568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AK082153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                       .041
                                                                                                                                                                                                                                                                                                                                                                                                    237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
AK082153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                셤
                                                                                                                                   ò
                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/proteIn_id="BAC29295.1"
/proteIn_id="BAC29295.1"
/db_xref="Gal130"
/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IlebheCysIleIleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGly 176
                                                                                                                                          mouse cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SESSION SESSIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIlePro 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrVall1eThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLys 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCTGCAAACAGTTGAAGTGGAAAACAGTGGTTGCCATCTTCGTGGTGGTCGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrLeuIleIleGlyAlaAlaValPheLysAlaLeuGluGlnGlnGluIleSerGln 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgThrThr11eVal11eGlnLysGlnThrPhe11eAlaGlnHisAlaCysValAsnSer 96
                                                                                                                                                                                                                        /note="unmamed protein product; POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog (Rattus norvegicus] (SWISSPROT|Q9JIS4, evidence: PASTY, 99.4%ID, 97.2%length, match=1569)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGACAGTCATCACAACCATAGGGTATGGGAATATTGCTCCGAGCACTGAAGGAGGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlahlaProAspLeuLeuAspProLysSerAla-----AlaGlnAsnSerLysProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGCCCCACCAGTGTGCCCAGCCCAAGAGTGCCACTAACGGGCATCACCCTGTTCCTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---AlaileAsnValMetLysTrpLysThrValSerThrIlePheLeuValValValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAla
                                                                                                                                          enriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1745
247
53
66
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
          xref="FANTOM_DB:9630032C21"
xref="taxon:10090"
                                                                                                 /tissue_type="cerebellum"
/clone_lib="RIKEN full-length
/dev_stage="16 days neonate"
387. .>1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-655-272-4 (1-370) x AK036066 (1-1745)
          /db_xref="FANTOM_DB
/db_xref="taxon:100;
/clone="9630032C21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.21e-142
1252.50
79.58%
65.52%
66.52%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
No
```

셤

ò

셤 Š ద

ò

Db Ś 셤 ð

8

g

g

à

g

ò

ò

DRIGIN

us-09-655-272-4.rst

TITLE

TITLE

```
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Adachi, J. Aizawa, K. Akimura, T., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hirosane, T., Havashida, K., Hayatsu, N., Hirosane, T., Hori, F., Imotani, K., Ishi, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nakani, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Sato, R., Saito, H., Saito, H., Sakai, C., Sakai, K., Sakazume, N., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takada, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y., Toya, T., Yasunishi, A., Miramatsu, M. and Hayashizaki, Y., Toya, T., Yasunishi, A., Miramatsu, M. and Hayashizaki, Y., Toya, T., Yasunishi, A., Mircett Submission
Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yonada,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramtsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer 20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="FANTOM_DB:C230015H11"
db_xref="taxon:10090"
/clone="C230015H11"
/tissue_type="cerebellum"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="0 day neonate"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="Mypsylgypplyavpaappvcopksatnghhpvprlsiss ratvvarmegasggglotvmkwktvvalpvvvvvylvtgglvpraleoppessgknyl
alekaeplrdhicvspqeletliqhaldadnagvspvgnssnssshwdlgsafppagt
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Group Phase I & II Team.
Analysis of the mouse transcriptome based on functional annotation
6 (60,770 tull-length cDNAs
Nature 420, 563-573 (2002)
6 (bases 1 to 2534)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (16-APR-2002) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (B-māll:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-922,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues.

Please visit our web site for further details.

URL:http://genome.gec.riken.jp/
URL:http://fantom.gec.riken.jp/.
                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="unnamed protein product; POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT) homolog [Rattus norvegicus] (SWISSPROT|Q9JIS4, evidence: PASTY, 99.4%ID, 97.2%length, match=1569)
                                                                                                                                                                                                                                                                                           The RIKEN Genome Exploration Research Group Phase II Team and
                                                                                                                                                                                                                                                                                                                   FANTOM Consortium. -
Functional annotation of a full-length mouse cDNA collection
Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                      FANTOM Consortium and the RIKEN Genome Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /proteIn_id="BAC38424.1"
/db_xref="GI:26349569"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .2534
                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                      PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
```

TITLE

CDS

FEATURES

COMMENT

```
RKKQVSQTKIRVISTILFIIAGCIVFYTIPAJIFKYIEGWTALESIYEVVVILTTVOF
GDFVAGGNAGINYREWYKPLVWFWILVGLAYPAAVLSMIGDWLRVLSKKTKEEVGEIK
RAHAABWKAALDVTAEFRETRRELSVEIHDKLQRAATIREMBERRIGLDQRAHSLDMLSPE
KRSVFAALDVTGRFKASSQESINNRPNNIRLKGPEQLTKHGQGASEDNIINKFGSTSKL
TKRKNKOLKKTLPEDVQXIYKTFRNYSLDEEKKEDETEKMCNSDNSSTAMLTECIQQO
AEMENGMVPTDTKDQGLENNSLLEDRN"
VITTIGYGNIAPSTEGGKI FCILYAI FGI PLFGFLLAGIGDQLGTI FGKSIARVEKVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                  230
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCTGCAAACAGTTATGAAGTGGAAAACAGTGGCTTGCCATCTTCGTGGTGGTCGTGGGTC 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                   287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             275
                                                                                                                                                                                                                                                                                                      19
                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96
                                                                                                                                                                                                                                                                                                                                                                                  TyrieullelleglyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                348 TACCTCGTCACTGGTGGCCTTGTCTTCCGGGCCTTGGAAACAGCCTTCGAGAAGCAGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 ArgThrThrileValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSer
                                                                                                                                                                                                                                                                                                      AlaalaProAspLeuLeuAspProLysSerAla----AlaGlnAsnSerLysProArg
                                                                                                                                                                                                                                                                                                                        ---AlaileAsnValMetLysTrpLysThrValSerThrIlePheLeuValValValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::: |||||| ||||||:::
408 AAGAACACATCGCCTTGGAGAAGGCAGAATTCTTGAGAACACACATCTGTGTGAGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97 ThrGluLeuAspGluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIlePro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              117 LeuGlyAsnSerSerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyThrValileThrThrileGlyPheGlyAsnIleSerProArgThrGlyGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         768 CGAAAGAAGCAAAGTGAGCCAGACCAAAGATCCGGGGTCATCTCCAACATCTTCATCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217 PheGlyCysValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  828 GCTGGCTGCATCGTGTTTGTGACCATCCCTGCTGTCATCTTTAAATACATCGAGGGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               237 SeralaLeuAspAlaIleTyrPheValValIleThrLeuThrThrIleGlyPheGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197 IleLysTrpAsnValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuSerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSer-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ::
                                                                                                                                                        2534
247
53
66
11
                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                       Indels:
                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                      (1-2534)
                                                                                                                                                                                                                                                                      x AK082153
                                                                                                                                                  2.15e-142
1252.50
79.58%
65.52%
66.52%
                                                                                                                                                                                                                                                                    US-09-655-272-4 (1-370)
                                                                                                                                                                                                       Similarity:
                                                                                                                                                                                      Percent Similarity
                                                                                                                                           Scores:
                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                288
                                                                                                                                                                                                                                                                                                    ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                       Best Local S
Query Match:
                                                                                                                                                          Pred. No.:
                                                                                                                                         Alignment
```

셤

ò

g ò 셤

ð

```
Adachi,J., Aizawa,K., Akimura,T., Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hashizume,W., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hashizume,W., Fukuda,S., Furuno,M., Harancco,K., Hiraoka,T., Hirozane,T., Hori,P., Imotani,K., Ishhi,Y., Itoh,M., Kagawa,I., Kasukawa,T., Katoh,H., Kawai,J., Kojima,Y., Kondo,S., Konno,H., Kouda,M., Nakamira,M., Nishi,K., Nomura,K., Numazaki,R., Ohno,M., Ohsato,N., Okazaki,Y., Saito,R., Saito,R., Sakai,C., Sakai,K., Sakazume,N., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sagabe,Y., Tanaka,T., Tomaru,A., Takahashi,F., Takaku-Akahira,S., Takeda,Y., Tanaka,T., Tomaru,A., Toya,T., Yasunishi,A., Muramatsu,M. and Hayashizaki,Y., Toya,T., Yasunishi,A., Direct Submission

M. Submitted (16-Ull-2011) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokoham Institute,1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (8-mail:genome-reseasc:itken.jp, Tel:81-45-503-9222, Pax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="medulla oblongata"
/clone lib="RIKEN full-length enriched mouse cDNA library"
/dev Etage="adult"
1. .2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHANNEL SUBUNIT) homolog [Rattus norvegicus] (TREK-2 K+ (SWISSPROT|Q9JIS4, evidence: FASTY, 99.4%ID, 97.2%length, match=1569)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119 GGCCTGCAAACAGTTATGAAGTGGAAAACAGTGGTTGCCATCTTCGTGGG-GTCGTGGTC 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---AlaileAsnValMetlysTrplysThrValSerThrIlePheLeuValValValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 AlaAlaProAspLeuLeuAspProLysSerAla-----AlaGlnAsnSerLysProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2628
246
53
67
12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               please visit our web site for further details. URL:http://genome.gsc.riken.jp/.URL:http://fanton.gsc.riken.jp/.
Location/Qualifiers 1..2628 1..2628 /organism="Was musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="FANTOM_DB:6330442J09"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-655-272-4 (1-370) x AK031904 (1-2628)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone="6330442J09"
of 60,770 full-remain.
Nature 420, 563-573 (2002)
6 (bases 1 to 2628)
6 Akim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.84e-139
1225.50
79.31%
65.25%
65.08%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prepare mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                           JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AK031904

Mus musculus adult male medulla oblongata CDNA, RIKEN full-length enriched library, clone:63443J09 product:POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBJUNIT) homolog [Rattus norvegicus],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H. Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. Sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                               1188 ATCCATGACAGCTGCAACGGGCAGCCACTATCCGAAGTATGGAGCGCCGGAGGCTGGGC 1247
       TITGIGGCAGGGGAAAIGCIGGCAICAAITACCGAGAGIGGIACAAGCCGCIGGIGIGG 1007
                                                                                                     Tringgarccircringccrirccracrirgcaccicrcrcrcacratarcacacacrag 1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Group Phase I & II Team.
Analysis of the mouse transcriptome based on functional annotation
                                                                                                                                                                                                                                                   GluTrpThrAlaAsnValThrAlaGluPheLysGluThrArgArgArgLeuSerValGlu 335
                                                                                                                                                                                                                                                                                                                                                    IleTyrAspLysPheGlnArgAlaThrSerVal------LysArgLysLeuSer 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIKEN Genome Exploration Research Group Phase II Team and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                     LeuargVallleSerLysLysThrLysGluGluValGlyGluPheArgAlaHisAlaAla
                                                       PheTrp11eLeuValGlyLeuAlaTyrPheAlaAlaValLeuSerMet11eGlyAspTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              352 AlaGluLeuAlaGlyAsnHisAsnGlnGluLeuThrProCysMetArgThr 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Heft. Enzymol. 303, 19-44 (1999)
10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3enome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AK031904.1 GI:26082587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTC; CAP trapper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AK031904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              he
                                                                                                          1008
                                                                                                                                                                                                        1068
                                                                                                                                                                                                                                                                                                         1128
            948
                                                          276
                                                                                                                                                           296
                                                                                                                                                                                                                                                         316
                                                                                                                                                                                                                                                                                                                                                       336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AK031904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
```

원

셤 à

ò

us-09-655-272-4.rst

셤

g

ò

g ò

ò

ద

g

à 셤

ò

```
920 bp mRNA linear EST 21-AUG-2002 AGENCOURT 8806570 NIH_MGC_129 Mus musculus cDNA clone IMAGE:6391232 5', mRNA sequence. BQ948206 BQ948206 GI:22363684 EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370) x CB526721
                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                                            25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BQ948206
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                   ..
No
                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /buratis="curron" | // buratis="curron" | // buratis="curron" | // buratis="curron" | // buratis="curron" | // curron" | /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CB526721 713 bp mRNA linear EST 09-JUL-2003 UI-M-FYO-cff-1-16-0-UI.rl NIH BMAP_FYO Mus musculus CDNA clone IMAGE:6848897 5', mRNA sequence. CB526721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapber.@mazul.nib.gov.

Email: cgapber.@mazul.nib.gov.

Tissue Procurement: Dr. Jim Lin, University of Iowa
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA.Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA. Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/mousefl.html
This clone was contributed by the Brain Molecular Anatomy Project
(BMAP)
                                                                                                                                                                                                                                                                                   221
                                               540
                                                                                                241
                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                                               LeuAlaTyrPheAlaAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSerLys 301
                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 713)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
PheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAspAla
                                                                                                                                                                                       242 IleTyrPheValVallleThrLeuThrThrIleGlyPheGlyAspTyrValAlaGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
1. .713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mol_type="mRNA"
'strain="C57BL/6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CB526721.1 GI:29360194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGACAAAAGAAGAG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysThrLysGluGlu 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer: pYX-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                   222
                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                             262
                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                      481
                                                                                                                                                                                                                                                                                                                                                                                         282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CB526721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
```

```
is AGCGAGACAG. This library was created for the University Iowa Brain Anatomy Project (BMAP): 'Gene Discovery in the Developing Mouse Nervous System', supported by National Institute of Mental Health (NIMH), Hemin Chin, Ph.D., program coordinator."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141 ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyUysIlePheCysIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161 IleTyrAlaLeuLeuGly1leProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               564
                                                                                                                                                                                                                                                                                                                                                                                              204
                                                                                                                                                                                                                                                                                                                                                                                                                                                        264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       384
                                                                                                                                                                                                                                                                                                                                      144
                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuGlyThrIlePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sos arcrarecerrecressaarreceererreserrieracreseeresserresereas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePheAlaGlyThrVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerGlnThrLyslleArgllelleSerThrllellePhelleLeuPheGlyCysVal
                                                                                                                                                                                                                                                                                                            SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                           85 TCATTCTCCTCAAAACCCACGTGCTTGCTTCCCGGGTGGAGAGTGACTCGGCCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAlaAlaValPhelysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81 ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           205 gdadccacgererrcaagdcarregagdcaccrcagdagarrrcccagaggaccacarr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 265 GIGATCCAGAAGCAGACCTTCATAGCCCAGCATGCCTGCGTCAACTCCACCGAGCTGGAC
                                                                                                                       713
227
1
1
0
0
                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuPheValAlaLeuProAlaValile 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          711
                                                                                                                                                                                                                          (1-713)
                                                                                                                         1.23e-128
1134.00
99.56%
99.13%
60.22%
```

```
/ .u.gullusm="nouto baptens"
// / u.gullusm="nouto baptens"
// db_xref="taxon:9606"
// db_xref="taxon:9606"
// clone="IMARA"
/ lab host="IMARA"
/ lab host="Human Brain - Frontal Cortex"
/ lab host="Dh108 TonA"
/ clone lib="NTH MGC 229"
// note="Organ: brain/Cns, Vector: pDNR-LIB; Site_1: Sfil
/ note="Organ: brain/Cns, Vector: pDNR-LIB; Library is
oligo-dT primed and directionally cloned.5' and 3'
adaptors were used in Cloning as follows:
5-AAGCAGTGGTATCAAGCAGTGGCATAGGCCTTAGAGG
CCGAGGCGCCGAATG-d(T)3N-IN-3. Full-length enriched
library was constructed using the Clontech Creator SWART
kit and size-selected for >0.5kb with an average insert
size of 1.2kb Library created in the laboratory of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-NOV-2003
                                                                                                                                                      545 GGAAACGAGGAGGCGCTGAGCGTGGAGATCTACGACAAGTTCCAGCGTGCCACATCCGT 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukmarnalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 654)
                                                                                                                                                                                                                                    BGluThrArgArgLeuSerValGluIleTyrAspLysPheGlnArgAlaThrSerVa
   286 aAlaValLeuSerMetIleGlyAspTrpLeuArgValIleSerLysLysThrLysGluGl
                                                           425 ACCIGITCIGAGCATGATIGGGGACTGCTACGGGTGATCTCTAAGAAGACGAAGA
                                                                                                                      uValGlyGluPheArgAlaHisAlaAlaGluTrpThrAlaAsnValThrAlaGluPheLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Under the Content of                                                                                                                                                                                                                                                                                                                                                            Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can l

found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov.

Plate: NDCM370 row: f column: 21

High quality sequence stop: 585.

High quality sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CK005597 6398134 NIH_MGC_229 Homo sapiens cDNA clone
AGENCOURT_16398134 NIH_MGC_229 Homo sapiens cDNA clone
IMAGE:30721772 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      654
208
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .654
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CK005597.1 GI:38531639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.01e-117
1045.00
98.16%
95.85%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                         306
                                                                                                                                                                                                                                             326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CK005597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                         ð
                                                                                                                                                               셤
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                               g
                                              Fukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

E 1 (Dasses 1 to 920)

NIH-MGC http://mgc.nci.nlh.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Onpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: Susan L. Sullivan, PhD.

CONTACT: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: Susan L. Sullivan, PhD.

CONTACT: Robert Strausberg, Ph.D.

CONTACT: Robert Strausberg, Ph.D.

CONTACT: Susan L. Sullivan, PhD.

CONTACT: Robert Strausberg, Ph.D.

CONTACT: Susan L. Sullivan, PhD.

CONTACT: Sullivan, McC. Contaction (LINIL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC. Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLMM13879 row: c column: 09

High quality sequence start: 18

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="IMAGE:531232"
/lab host="DH10B (phage-resistant)"
/clone lib="NIH MGC-129"
/note="Organ: olfactory epithelium; Vector: pCMV-SPORT6.1;
Site_1: EcoRV; Site_2: Not1; Cloned unidirectionally.
Site_iner: Oligo dT. Average insert size 2.2 kb. Constructed by ResGen, Invitrogen Corp. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  eArgileileSerThrileilePheileLeuPheGlyCysValLeuPheValAlaLeuPr 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111eThrLeuThrThr11eGlyPheGlyAspTyrValAlaGlyGlySerAspIleGluTy 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAapGlnLeuGlyThrIlePheGl 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186 yLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsnValSerGlnThrLysIl 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oAlaValilePheLysHisIleGluGlyTrpSerAlaLeuAspAlaIleTyrPheValVa 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305 TATCACTCTGACGACCATTGGATTTGGAGACTACGTGGCAGGTGGATCAGACATTGAATA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAGGAATTGCCAAAGTGGAAGACACATTTATTAAGGGGAATGTTAGTCAGACGAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185 TGTATCATCTCCACCATCATCTTCATCTGTTTGGCTGTGTCTCTTTGTGGCTCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTCCCCTCTTTGGCTTTCTACTGGCTGGGGTTGGTGATCAGCTAGGAACTATTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             920
217
0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .920
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-655-272-4 (1-370) x BQ948206 (1-920)
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.16e-125
1106.00
99.09%
99.09%
58.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                  ORGANISM
                                                                                                                                               AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ેં
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

```
47 Aridecescaccreacrrecresarccraaarcrececreasacrecaaaccesaacce 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLeuileGlnGlnIleValAlaAlaileAsnAlaGlyileileProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GlyAlaAlaValPheLysAlaLeuGluGlnGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MetalaalaproAspLeuLeuAspProLysSerAlaalaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þe
DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://mage.lln.gov
Plate: IRBK8 row: g column: 07

High quality sequence start: 17

High quality sequence start: 17

High quality sequence stop: 670.

Location/Qualifiers

1. 1834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               834
204
116
25
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                x CO248930 (1-834)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82e-106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         955.00
88.00%
81.60%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
DB:
                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.:
                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E 1 (Dases 1 to 834)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Institute, NIH

Bldg. 31 Rml0A07 Bethesda, MD 20892

Email: cgapbs-remail.nih.gov

Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST 23-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                             ileTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544 crcrirerescricrescracearcararricaaacacarasaasecresagrescrecac 603
                                                                                                                                                                                                                                                        GluLeuileGlnGlnIleValAlaAlaileAsnAlaGlyileileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrValIle 140
                                                                                                                                                                                                                                                                                                                                    363
                                                                                                                                                                                                                                                                                                                                                                                                                                                 123
                                                                                                                                                                                                  ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                80
                                                                                  9
                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTAGTCAGACCAAGATTCGCATCATCTCAACAATCATATTTATACTATTTGGCTGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSerAlaLeuAsp
                                                                                                                                       GlyAlaalaValPheLysAlaLeuGluGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                        ThrThrileGlyPheGlyAsnileSerProArgThrGluGlyGlyLy8ilePheCysile
                                                                                                                                                                                                                                                                                                                                                                                          ValSerGlnThrLys1leArg1le1leSerThr1le1lePhe1leLeuPheGlyCysVal
                                                                                                                                                                    GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                        GTTATGAAATGGAAGACGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                  ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 AlaileTyrPheValValileThrLeuThrThrIleGlyPheGlyAspTyr 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               604 GCCATTTATTTTGTGGT-ATCACTCTAACAACTATTGGTATTGGTGACTAC 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CUZABUSO 834 bp mRNA linear ES:
AGENCOURT 25900941 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:7286361 5', mRNA sequence.
CO248930
            -0
            Indels:
                           Gaps:
                                                      US-09-655-272-4 (1-370) x CK005597 (1-654)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CO248930.1 GI:49118782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
             55.50%
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CO248930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                          304
                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484
                                                                                                                                                                                                     81
                                                                                                                                                                                                                                 124
                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                   244
            Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
CO248930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
```

g

ò В ò g à g ò

8 8

임 à g

ò

g à 셤

8

요

ò

ò

120

406

286 100 346

80

166

9

40

140

ď

8 셤 ठे 원

g ò 셤 õ

ઠ

```
746 CACATGATTGGACACTCGGTCAATGATCGACTCTACGCGGTG 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                     ..
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mkNA"
// db xrefe="taxon:9606"
// db xrefe="taxon:9606"
// db xrefe="taxon:9606"
// lab_host="lwad" ("I phage-resistant)"
// lab_host="nixad" ("I phage-resistant)"
// lab_host="DHSA ("I phage-resistant)"
// lab_host="DHSA ("I phage-resistant)"
// clone lib="NHH MGC 195"
// note="Wector: pDNN-Dual; Site 1: loxP-Sall; Site 2:
// note="Wector: pDNN-Dual; Site 1: loxP-Sall; Site 2:
// note="Wector: pDNH MGC 195"
// note="Wector: pDNH page specific primers to contain the PCR-amplified using gene-specific primers to contain the PCR-amplified using gene-specific primers to contain the complete on reading frame (based on known gene sequences available from NCBI's Refseq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CUZ49404
AGENCOURT 25900989 NIH_MGC_195 Homo sapiens cDNA clone
AMAGE:7286364 5', mRNA sequence.
                                                                                                                          586
                                                                                                                                                                                                                                                      ValSerGlnThrLys1leArg1le-----1leSerThr1leIlePheIleLeuPheGly 218
                                                                                                                                                                                                                                                                                                                                                               ||| ::: ||||::: ||| TGCTGATGTTATTGTATATCCCACACATGATTGGA 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1. (Dases 1 to 827)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conteact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 RmlOA07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: WGC clone distribution information can be found through the I.M.A.G.E. Consortium/LiNL at:
http://mage.llnl.gov
                                                                              ThrThr1leGlyPheGlyAsn1leSerProArgThrGluGlyGlyLys1lePheCys1le
                                                                                                                                                                                             GTTAGTCAGACCAAGAT-CGCATCTCCAACATCTATTAACTATTGCTGGTACCTTGGGCC
                                ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                   LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPheIleLysTrpAsn
                                                                                                                                                                                                                                                                                                                                       CysValLeuPhe------ValAlaLeuProAlaValIlePheLy8HisIleGluGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ğ
                                                                                                                                                                                                                                                                                                                                                                                                                       236 TrpSerAlaLeuAspAlaileTyrPheVal 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   764 ACNTGCGGATCATGAACGATATACGCGGTC 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plate: IRBK8 row: g column: 10
High quality sequence start: 15
High quality sequence stop: 639.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CO249404
CO249404.1 GI:49120300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST.
                                                                                                                          527
                                           467
                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                             645
                                                                                                                                                                                                                                                                                                                                       219
                                                                                                                                                                                                                                                                                                                                                                                704
                                                                                     161
                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CO249404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
```

```
of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous frp site at the plantage. Library anonymous an Anonymous and Anonymous and Anonymous and Anonymous Anonymous and Anonymous Anon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46 ATGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACGGGGCTC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         106 TCGTTTTCCACGAAACCCACAGAGCTTGCTTCCCGGGTGGAGAGTGACACGACCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  406 TCCAATCAAATCAGTCACTGGGATTTGGGAAGTTCCTTCTTTGTTGCTGGCACTGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           466 ACAACCATAGGATTGGAAACATCTCACCAGGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          226 GGAGCCACCGTGTTCAAAGCATTGGAGCAGCCTCATGAGATTTCACAGAGGACCACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     346 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerAanGlnValSerHisTrpAapLeuGlySerSerPhePheAlaGlyThrVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyThrilePheGlyLysGlyIleAlaLysValGluAspThrPhe-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197 IleLysTrpAsnValSerGlnThrLysIleArgIleIleSerThrIleIlePheIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----ValLeuPheValAlaLeuProAlaValIlePheLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTAGGCACCATATTTGGAAAAGGATT-GCCAAAGTGGAAGATCGTTTTTAAGTGGATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HislleGluGlyTrpSerAlaLeuAspAlalleTyrPheVal 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                   827
201
16
22
17
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     x CO249404 (1-827)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.86e-106
949.00
85.43%
79.13%
50.40%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                217 PheGlyCys------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-655-272-4 (1-370)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
```

287

80

227

9

467 160 527 180 587 200 643

407

Нопо

REFERENCE AUTHORS TITLE JOURNAL COMMENT

VERSION KEYWORDS SOURCE ORGANISM

LOCUS DEFINITION

20247814

ACCESSION

```
Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

I (bases 1 to 760)

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Mupublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: capaba-ramail.nih.gov

Tissue Procurement: Dr. James Lin, Univeristy of Iowa CDNA Library preparation: Dr. M. Bento Soares, University of Iowa CDNA Library prayaration: Dr. M. Bento Soares, University of Iowa DNA Sequencing by: Dr. M. Bento Soares, University of Iowa Clone Distribution: Clone distribution information can be obtained from Dr. M. Bento Soares, University of Iowa Clone Distribution: Clone distribution information can be obtained from Dr. M. Bento Soares, University of Iowa Clone Distribution: Clone distribution information can be obtained from Dr. M. Bento Soares, bento-soares@ulowa.edu

This clone was contributed by the Brain Molecular Anatomy Project (BMAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BUG10944 160 bp mRNA linear EST 20-FEB-2003 UI-M-FCO-cas-e-02-0-UI.rl NIH BMAP_FCO Mus musculus cDNA clone UI-M-FCO-cas-e-02-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101 GluLeuIleGlnGlnIleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161 IleTyrAlaLeuLeuGlylleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        288 GTGATCCAGAAGCAAACATTCATATCCCAACATTCCTGTGTCAATTCGACGGAGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      348 GAACTCATTCAGCAAATAGTGGCAGCAATAAATGCAGGGATTATACCGTTAGGAAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrihelledlyhedlyhenleSerProhrgThrGluGlyGlyLysIlePheCysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 LeuGlyThrilePheGlyLySGlyIleAlaLySValGluAspThrPheIleLySTrpAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 ValSerGlnThrLysIleArgIle1leSerThrIle1lePheIleLeuPheGlyCys---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyAlaAlaValPheLysAlaLeuGluGlnGlnGluIleSerGlnArgThrIle
                                                                                                                                                                                                                           528 Arcraigectriacressaarreceererrissirricierrissectssastresagareas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220 ------ValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGly
                                                                                   ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                   81 valileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     468 ACAACCATAGGATTTGGAAACATCTCACCACGCACAGAAGGCGGCAAAATATTCTGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 TrpSerAlaLeuAspAlaileTyr 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 CACTGCGGATCATGAACGATCTAC 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BU610944.1 GI:23277159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BU610944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                               61
                                                                                                                                                                                                                                                    228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                        41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BU610944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                          셤
                                                                                                                                                                                               ò
                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /tissue type="mixed" / tissue " / note="weetor: pDNR-Dual; Site_1: loxe-HindIII; Clones from this library have been loxe-HindIII; Clones from this library have been pcR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq. Template for PCR is CDNA, derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liso (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site action to represents, please tips://image.lihi.gov/image/rearrayed_plates/IRBK.preSV.dat a NOte: this is a NIH_MGC Library."
                                         EST 23-JUN-2004
                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 840)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBX8 row: g column: 08
High quality sequence start: 18
High quality sequence start: 18
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetalaalaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                                                 NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela 8. Gerhard, Ph.D.
Office of Cancer Genomics
                           CO247814 840 bp mRNA linear EST
AGENCOURT 25900957 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE7286362 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
1198
117
26
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:7286362"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1-840)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-655-272-4 (1-370) x CO247814
                                                                                                                                                     CO247814.1 GI:49114558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73e-105
                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         945.50
86.69%
79.84%
50.21%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
```

source

FEATURES

Arcecedeaccreacriceresarceraarcrececreasacrecaaacceagecre 21 SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaIleAsn 40

Н 48

ò 엄 ò

Alignment Scores:

ORIGIN

.. No.:

760

235

```
/uranism="Homo sapiens"
//wol type="mRNA"
//db Aref="Homo sapiens"
//db Aref="Homo sapiens"
//db Aref="Homo sapiens"
//db Aref="texton:9606"
//lab host="Homes"
//lab from NCBF's RefSeq). Template for PCR is CDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
//rom BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
//lab homes in the form of the low o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Enkaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.
En (Dases 1 to 854)
I (Dayblished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-rement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Preparation: Bhat Laboratory
CDNA Library Preparation: Boscience Corporation
Clone distribution: MGC clone distribution information can be found through the 1.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK row: g column: 06
High quality sequence stop: 584.
Location/Qualifiers
Location/Qualifiers
                                                                                                                                                                                                                           CO249306
AGENCOURT 25900925 NIH MGC_195 Homo sapiens CDNA clone
IMAGE:7286360 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ftp://image.llil.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
652 ATCTATGCCTTGCTGGGAATTCNCCTCTTTGGCTTTCTACTGGCTGGGGTTGGTGATCAG 711
                                                        854
190
14
17
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                                                           CO249306.1 GI:49120079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.12e-103
932.50
91.07%
84.82%
                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                              EST.
                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                  RESULT 14
CO249306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                          셤
                                                              ò
                                                                                                                                                                                                  /clone="UT-M-FCO-case-02-0-UI"
/tissue_type="whole brain"
/dev stage="embryo 12.5 dpc"
/lab_host="BDH10B (TI phage resistant)"
/clone_lib="NIH BMAP_FCO"
/clone lib="NIH lib="NIH BMAP_FCO"
/clone lib="NIH BMAP_FCO"
/clone lib="NIH lib="NIH BMAP_FCO"
/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrThr11eGlyPheGlyAsn11eSerProArgThrGluGlyGlyLys11ePheCys11e 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161 IleTyrAlaLeuLeuGlyIleProLeuPheGlyPheLeuLeuAlaGlyValGlyAspGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValileGlnLysGlnThrPheIleAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAACCATAGGATTTGGAAACATCTCCCCACGAACTGAAGGTGGAAAATATTCTGCATC 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 TCATTCTCCTCAAAACCCACCGTGCTTGCTTCCGGGTGGAGTGACTCGGCCATTAAT 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTATGAAATGGAAGACAGTCTCCACGATTTTCCTGGTGGTCGTCCTCTACCTGATCATC 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerPheSerSerLygProThrValLeuAlaSerArgValGluSerAgpSerAlalleAsn 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyAlaAlaValPheLysAlaLeuGluGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                760
190
1
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                             organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                     _xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-655-272-4 (1-370) x BU610944 (1-760)
                                  Location/Qualifiers
                                                                                                                          /mol_type="mRNA"
/strain="C57BL/6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.75e-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            943.00
97.45%
96.94%
50.08%
         Seq primer: pYX-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
DB:
                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlureulleGlnGlnrleValAlaAlaIleAsnAlaGlyIleIleProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46 ATGGCGGCACCTGACTTGCTGGATCCTAAATCTGCCGCTCAGAACTCCAAACCGAGGCTC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 ValileginiyeginThrPheileAlaGinHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 ValMetLysTrpLysThrValSerThrIlePheLeuValValValLeuTyrLeuIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTTATGAAATGGAAGAGGGTCTCCACGATATTCCTGGTGGTTGTCCTCTATCTGATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GlyalaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrThrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerPheSerSerLysProThrValLeuAlaSerArgValGluSerAspSerAlaileAsn
                           þe
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can |
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK8 row: g column: 09
High quality sequence start: 16
High quality sequence stop: 628.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
196
18
28
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                   1. .832
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-655-272-4 (1-370) x CO245300 (1-832)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.91e-103
929.00
86.99%
79.67%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                406
                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment
                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                    DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)

Homo sapiens

Homo sapiens

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 832)

S NIH-MCG http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics
National Cancer Institute / NIH

Bldg. 31 Rml0A07 Betheeda, MD 20892

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 23-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGlyThrilePheGlyLysGly11eAlaLysValGluAspThrPheileLysTrpAsn 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerGlnThrLysIleArgIleIleSerThrIleIlePhelleLeu-----PheGly 218
                                                                                                                                                                                                                                                                                                                                     SerAsnGlnValSerHisTrpAspLeuGlySerSerPhePhePheAlaGlyThrVallle 140
                                                                                                                                                                                                                                                                                                                                                                                     ThrThrIleGlyPheGlyAsnIleSerProArgThrGluGlyGlyLysIlePheCysile 160
                                                                                                                                                                                                                                                                                                                                                                                                              527
                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                        467
                                               167
                                                                                                                                                 ValileGlnLysGlnThrPheileAlaGlnHisAlaCysValAsnSerThrGluLeuAsp 100
                                                                                                                                                                                                                                                 GluleuileGlnGlnileValAlaAlaileAsnAlaGlyileileProLeuGlyAsnSer 120
                                                                                                                                                                                                                                                                                                   40
                                                                                                                                   9
                                                                                                                                                                                    80
                                   20
                                                                                                                                                                                                                                                                                                                                                    SerPheSerSerIysProThrValLeuAlaSerArgValGluSerAspSerAla11eAsn
                                                                                               ValMetLysTrpLysThrValSerThrIlePheLeuValValValValLeuTyrLeuIleIle
                                                                                                                                                                                    GlyAlaAlaValPheLysAlaLeuGluGlnProGlnGluIleSerGlnArgThrIle
                                  MetAlaAlaProAspLeuLeuAspProLysSerAlaAlaGlnAsnSerLysProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-655-272-4 (1-370) x CO249306 (1-854)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||
TGCTGCATCTAT 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CysValLeuPhe 222
                                                                                                                                                                                                                                                                                                                                                                                                                   468
                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219
                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                           121
                                                                                        21
                                                                                                                                                                 891
                                                                                                                                                                                          61
                                                                                                                                                                                                                  228
                                                                                                                                                                                                                                                                  288
                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                   348
                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
CO245300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
```

. 음 ò 셤 ò g à 셤 à d à 요

à ద ò g à

8 6 8

8 ò ð g 345

285

80

225 9

165

40

8 8 8 8

q

육 &

ð

220 ------ValLeuPheValAlaLeuProAlaValIlePheLysHisIleGluGlyTrpSe 237

237 rAlaLeuAspAlaIle 242

q

Search completed: February 3, 2005, 03:44:10 Job time : 3776.86 secs

THIS PACE LEFT BLAM